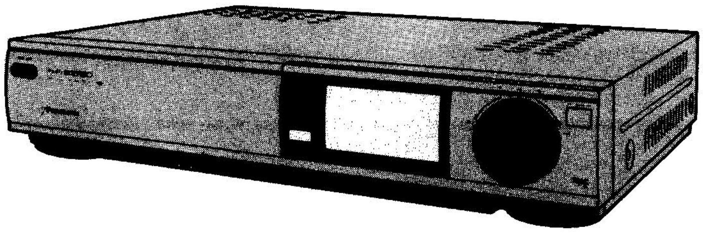
ORDER NO. VRD8812M176

Service Manual

General Description
Adjustment Procedures
Block / Schematic Diagrams
Exploded Views / Parts List

Video Cassette Recorder
Panasonic VHS PAL Hi-Fi HQ

NV-F70B EV



SPECIFICATIONS

ITEM	SPECIFICATION	
POWER	SOURCE: 240 V 50/60 Hz (NV-F70B) 220 V 50/60 Hz (NV-F70EV)	
	CONSUMPTION: 30 watts	
RECORDING SYSTEM	2 rotary heads, helical scanning system	
	PAL	
TV TUNER SYSTEM	NV-F70B	UHF: CH21～CH69 (PAL I) 75Ω unbalanced
	NV-F70EV	VHF I : CHE2～CHS3 VHF Ⅲ: CHM1～CHE12 VHF H: CHU1～CHS41 (PAL B) 75Ω unbalanced UHF: CH21～CH69 (PAL G) 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36±4 (PAL I) 73±3dBμ, 75Ω terminated (NV-F70B) UHF: CH36±4 (PAL G) 70^{+2}_{-3}dBμ, 75Ω terminated (NV-F70EV)	
VIDEO	HEADS: 4 rotary heads 1 pair for recording, playback (L-R heads) 1 pair for trick play (L′-R′ heads)	
	INPUT: VIDEO IN Connector (BNC type) 1.0 Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0 Vp-p, 75Ω terminated	
	OUTPUT: VIDEO OUT Connector (BNC type) 1.0 Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0 Vp-p, 75Ω terminated	
AUDIO	HEAD: 1 Stationary head (Normal Audio) 2 rotary heads (Hi-Fi 2CH)	

ITEM	SPECIFICATION
AUDIO	INPUT: AUDIO IN Connector (Phono type) More than −10 dBV (316 mV), more than 50 kΩ EURO AV Connector (21 pin) More than −10 dBV (316 mV), more than 10 kΩ MICROPHONE JACK −70 bBV
AUDIO	OUTPUT: AUDIO OUT Connector (Phono type) −8 dBV (400 mV), Less than 1 kΩ EURO AV Connector (21 pin) −6 dBV (500 mV), Less than 1 kΩ HEAD PHONE Jack −30 dBV, 8Ω
	TRACK: 1 track (Normal-mono only) 2 channels (Hi-Fi Sound-Stereo)
TAPE FORMAT	VHS Cassette tape (Tape width 12.7 mm)
TAPE SPEED	SP: 23.39 mm/s LP: 11.695 mm/s Record/Playback Time: SP: 4 hours with 240 min. type tape LP: 8 hours with 240 min. type tape FF/REW Time 3.0 min. with 180 min. type tape
DIMENSIONS	430(W) × 86(H) × 376(D) mm
WEIGHT	6.2 kg (NV-F70B) 6.0 kg (NV-F70EV)
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-red remote controller (Build in Digital Scanner type) 2 pc. Audio Cables 1 pc. Programme sheet 1 pc. AC Mains Lead

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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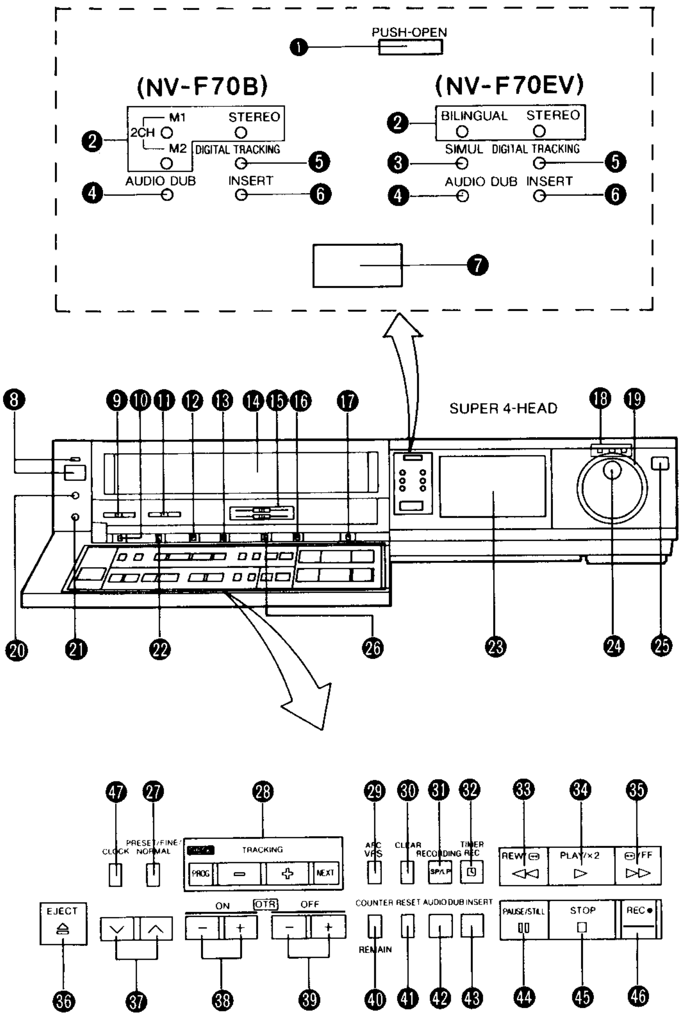
SECTION 1
GENERAL DESCRIPTIONS

1-1. CONTROLS & COMPONENTS

FRONT


PUSH-OPEN
(NV-F70B)
(NV-F70EV)
M1
STEREO
2CH
M2
DIGITAL TRACKING
AUDIO DUB
INSERT
BILINGUAL
STEREO
SIMUL
DIGITAL TRACKING
AUDIO DUB
INSERT
SUPER 4-HEAD
CLOCK
PRESET/FINE/ NORMAL
TRACKING
PROG
NEXT
AFC VPS
CLEAR
RECORDING
SP/LP
TIMER REC
REW
PLAY/×2
FF
EJECT
ON
OTR
OFF
COUNTER
RESET
AUDIO DUB
INSERT
REMAIN
PAUSE/STILL
STOP
REC●
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞ ㉟ ㊱ ㊲ ㊳ ㊴ ㊵ ㊶ ㊷ ㊸ ㊹ ㊺ ㊻ ㊼

① Control Panel Open Button

② Audio Recording Mode Indicators

③ Simulcast Indicator **(NV-F70EV ONLY)**

④ Audio Dubbing Indicator

⑤ Digital Tracking Indicator

⑥ Insert Editing Indicator

⑦ Infra-red Remote Control Receiver

⑧ VTR On/Off Switch with Indicator

⑨ Headphones Output Level Control

⑩ Noise Filter/Edit Selector

⑪ Picture Sharpness Control

⑫ Hi-Fi/Normal Mix Switch

⑬ Digital Tracking Selector

When this selector is selected for "ON" and Tracking (+) and (−) button is pressed simultaneously, unit will search the best tracking position automatically. During searching , Digital tracking indicator will be flashing .
In the case of "OFF" position , when (+) and (−) button is pressed simultaneously , tracking is set for "electrical centre fix position" automatically.

⑭ Cassette Compartment

⑮ Audio Rec Level Controls (L/R)

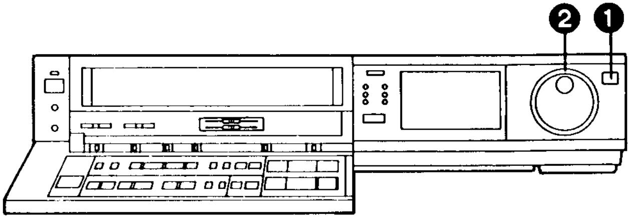
⑯ Tape Select Switch

⑰ Input Signal Selector

⑱ Jog/Shuttle Indicator

⑲ Shuttle Ring

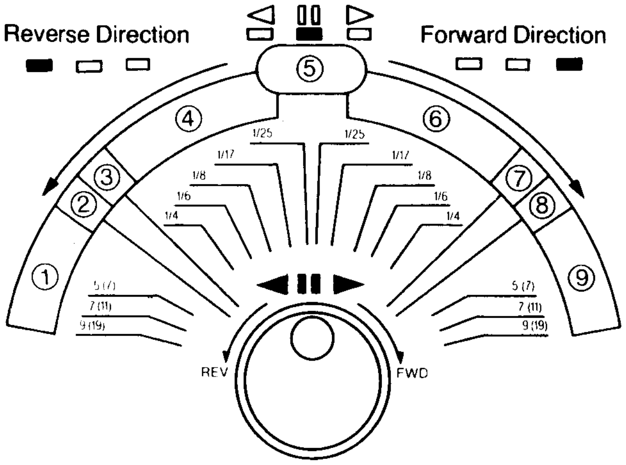
With the handy Shuttle Ring, the playback speed can be adjusted step by step in both forward and reverse directions.



① When the VTR is in the stop or playback mode, press the Jog/Shuttle Button (the playback will start at the speed that corresponds with the setting of the Shuttle Ring).

② Turn the Shuttle Ring to select the desired playback speed and direction.

Shuttle Ring Setting and Corresponding Playback Speed and Direction


Reverse Direction
Forward Direction
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③
②
①
⑥
⑦
⑧
⑨
1/25
1/17
1/8
1/6
1/4
1/25
1/17
1/8
1/6
1/4
5 (7)
7 (11)
9 (19)
5 (7)
7 (11)
9 (19)
REV
FWD

① Review Playback

② Double Speed Reverse Playback

③ Reverse Playback

④ Reverse Slow Motion Playback

⑤ Still Playback

⑥ Slow Motion Playback

⑦ Normal Playback

⑧ Double Speed Playback

⑨ Cue Playback

- **The Figures on the Shuttle Ring Scale Indicate Multiples and Fractions of the Normal Playback Speed.**
  The Cue and Review playback speed will be different for recordings made in the SP and LP mode. The figures in parenthesis ( ) indicate the speed for recordings made in the LP mode.
- If Cue or Review playback continues for more than 10 minutes or if the Still playback continues for more than 5 minutes, the VTR will automatically switch over to the stop mode.
- To return to normal playback, press the Play Button or the Jog/Shuttle Button.

Using the Remote Controller

When the Search Button is pressed during playback, a still picture will be reproduced. The (+) and (−) Buttons have the same functions as the Shuttle Ring:

+ : In forward direction.
− : In reverse direction.

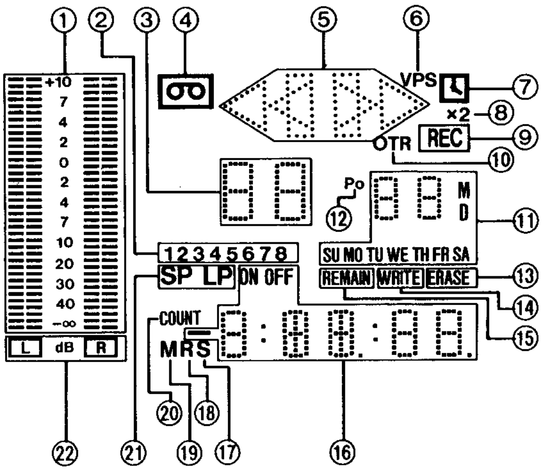
- When the Search Button is pressed again, the search function will be cancelled.

⑳ Microphone Input Socket

㉑ Headphones Socket

㉒ MPX Filter Switch

㉓ Multi-Function Display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2
4
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30
40
−∞
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R
VPS
×2
OTR
REC
Po
M
D
12345678
SU MO TU WE TH FR SA
SP LP
ON OFF
REMAIN
WRITE
ERASE
COUNT
MRS

① Audio Level Meter

② Timer Programme Number

③ Channel Display

④ Cassette-in Indicator

⑤ Tape Running Display

⑥ VPS Indicator (NV-F70EV ONLY)

⑦ Timer Recording Indicator

⑧ Double Speed Indicator

⑨ Recording Indicator

⑩ OTR Indicator

⑪ Date Display

⑫ Position Indicator

⑬ Erase Indicator

⑭ Write Indicator

⑮ Remaining Tape Time Indicator

⑯ Tape Counter Indicator

⑰ Search Indicator

⑱ Repeat Indicator

⑲ Memory Indicator

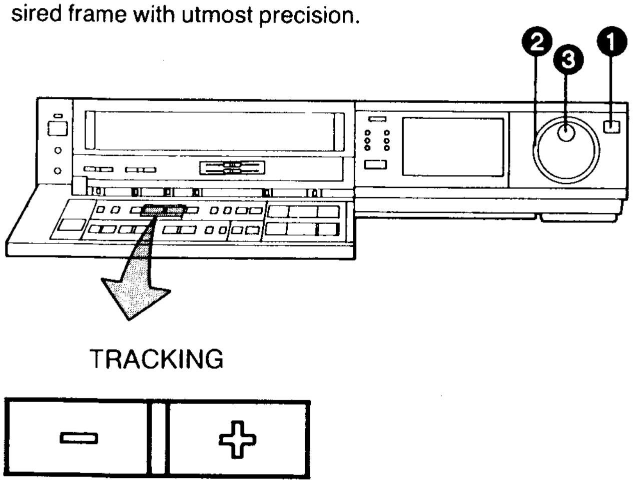
⑳ Counter Mode Indicator

㉑ Tape Speed Indicator

㉒ Audio Playback Mode Indicators

㉔ Jog Dial

The convenient Jog Dial makes it easy to locate any desired frame with utmost precision.



① Press the Jog/Shuttle Button while the VTR is in the stop mode or in the playback mode.

② Return the Shuttle Ring to the center "click" position (Still playback mode).

③ Turn the Jog Dial clockwise or counterclockwise.
- The field advance speed changes according to the speed with which the dial is turned.

Turning the Jog Dial
- Every turn of approx. 30° will advance or reverse the tape by one field.
- A turning speed of the Jog Dial of more than 5 rotations per second corresponds to the normal playback speed.

Slow Tracking Control
- When noise bars appear during Super Still, Super Still Advance or Super Fine Slow playback, switch over to Slow playback and adjust with the Tracking (+) or (−) Button to reduce the noise bars.
- It may not be possible to eliminate the noise bars completely.

㉕ Jog/Shuttle Button

㉖ Mono On/Off Switch (NV-F70B ONLY)

㉗ Preset/Fine/Normal Button

㉘ Timer Controls

㉙ AFC/VPS Button (NV-F70EV ONLY)

㉚ Clear Button

㉛ Tape Speed Button

㉜ Timer Record Button

㉝ Rewind ◀◀/Review ⏪ Button

㉞ Play/×2 Button

㉟ Fast Forward ▶▶/Cue ⏩ Button

㊱ Eject Button (⏏)

㊲ Channel Selection Up and Down Buttons

㊳ OTR On Buttons

㊴ OTR Off Buttons

㊵ Counter/Remaining Tape Time Selector

㊶ Reset Button

㊷ Audio Dubbing Button

㊸ Insert Editing Button

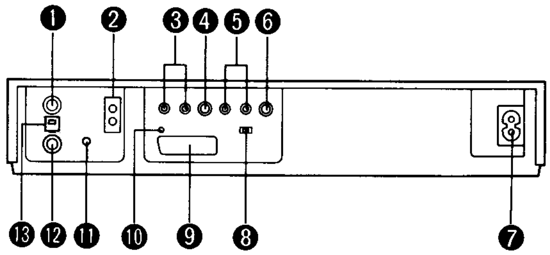
㊹ Pause/Still Button (❚❚)

㊺ Stop Button (■)

㊻ Record Button (●)

㊼ Clock Button

REAR



① RF Output Socket

② Vertical Lock Controls

③ Audio Input Sockets

④ Video Input Socket

⑤ Audio Output Sockets

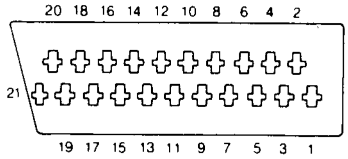
⑥ Video Output Socket

⑦ AC Mains Lead Socket

⑧ Test Signal Switch

⑨ Euro AV Socket

Connections of the Euro AV Socket



1 AUDIO OUTPUT CH2 (R)
2 AUDIO INPUT CH2 (R)
3 AUDIO OUTPUT CH1 (L)
4 AUDIO GND
5 No connection
6 AUDIO INPUT CH1 (L)
7 No connection
8 SWITCHING VOLTAGE
9 No connection
10 No connection
11 No connection
12 No connection
13 No connection
14 No connection
15 No connection
16 No connection
17 VIDEO GND
18 No connection
19 VIDEO OUTPUT
20 VIDEO INPUT
21 GND

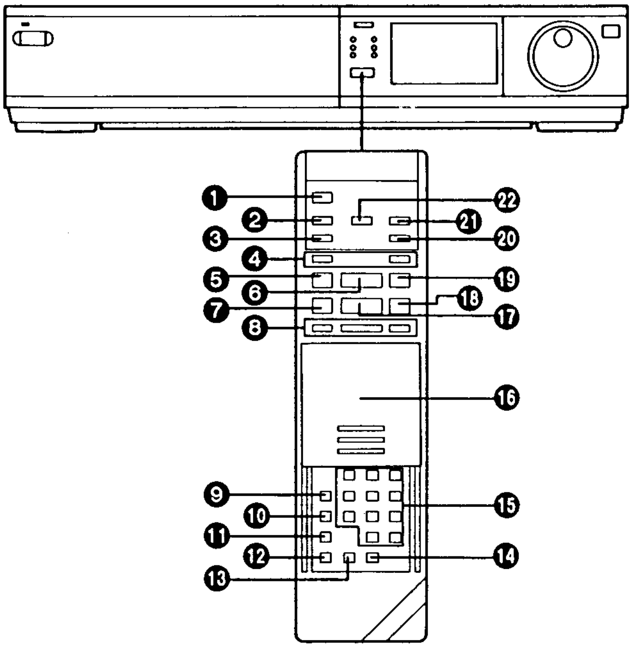
❿ Synchro Edit Socket

⓫ Video Playback Channel Selector
- If UHF channel 36 is already occupied by a TV station in your area, the video playback channel can be changed from channel 32 to 40 on the back of the VTR by using a small screwdriver.

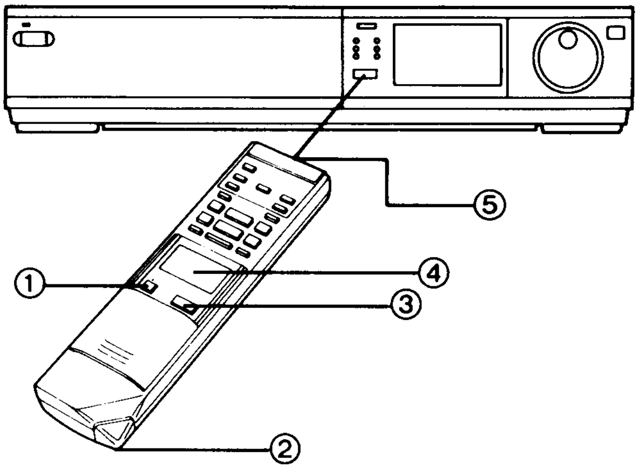
⓬ RF Input Socket

⓭ RF Signal Level Switch (NV-F70B ONLY)

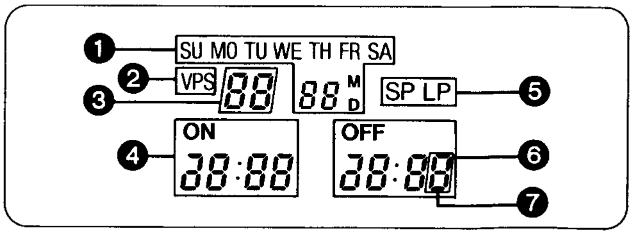
1-2. INFRA-RED REMOTE CONTROLLER



❶ **VTR On/Off Button**
❷ **Clock Counter Selector**
❸ **Audio Output Selector**
❹ **Record Buttons (●)**
❺ **Pause/Still Button (❚❚)**
❻ **Stop Button (■)**
❼ **Rewind ◀◀/Review ⏪ Button**
❽ **Search Buttons**
❾ **Time Search Button**
❿ **Monitor Button**
⓫ **Remaining Tape Time Button**
⓬ **Index Button**
⓭ **Write Button**
⓮ **Erase Button**
⓯ **Programme Position (Channel) Selector Buttons**
⓰ **Mode Selector Cover**
⓱ **Play/×2 Button (▶)**
⓲ **Fast Forward ▶▶/Cue ⏩ Button**
⓳ **Still Advance Button (❙▶)**
⓴ **Reverse Play Button**
㉑ **Memory/Search Button**
㉒ **Reset/Index Button**



① **Digital Scanner On/Off Switch**
② **Bar Code Reading Section**
③ **Transmit Button**
④ **Bar Code Reader Display**

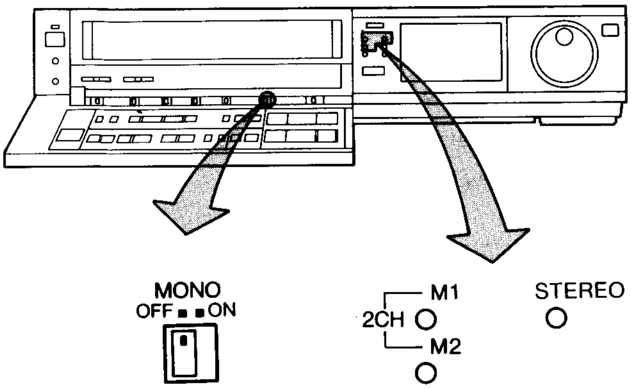


❶ Date Display
❷ VPS Indicator (NV-F70EV ONLY)
❸ Channel Display
❹ Start Time Display
❺ Tape Speed Indicator
❻ End Time Display
❼ Check Indicator

⑤ **Transmitting Section**

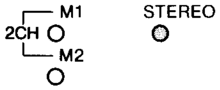
1-3. NICAM SYSTEM (NV-F70B)

The NICAM system is a ground-based TV service for digital stereo sound. To receive NICAM broadcasts, the NV-F70 incorporates a NICAM decoder.
When a stereo, dual-soundtrack or monaural NICAM programme is being received, the indicators light up to inform you of the type of broadcasts. The NICAM programmes are always accompanied by standard broadcasts and you can select the desired soundtrack for recording with a single switch. NICAM soundtracks can only be recorded on the hi-fi audio track.



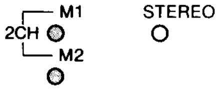
Preparation
- Set the Input Signal Selector to "Tuner".

Recording of a NICAM stereo programme



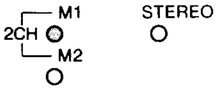
The STEREO Indicator is lit while a NICAM stereo programme is being received. To record such a programme, set the Mono Switch to "Off".
NICAM stereo sound will be recorded on the hi-fi track and the regular (standard) sound will be recorded on the normal audio track.

Recording of a NICAM dual-sound track programme



Both the M1 and M2 Indicators are lit while a NICAM dual-soundtrack programme is being received. To record such a programme, set the Mono Switch to "Off".
The M1 and M2 sounds will be recorded on the hi-fi track: M1 on the left channel and M2 on the right channel.

Recording of a NICAM monaural programme

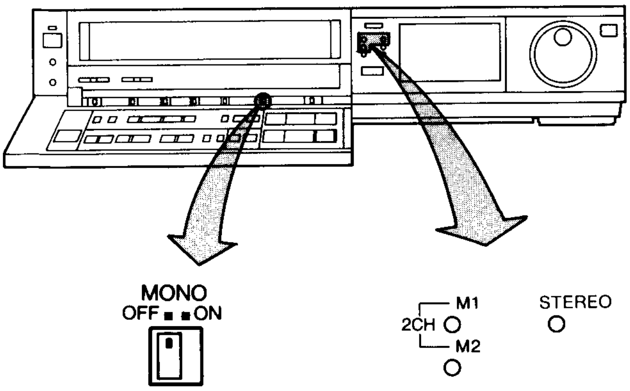


Only the M1 Indicator is lit while a NICAM monaural programme is being received. To record such a programme, set the Mono Switch to "Off". The same monaural sound will be recorded on both channels of the hi-fi track.

Recording options according to the type of broadcasts and the setting of the Mono Switch

Type of broadcast	Mono switch position / Audio track	Normal audio track (mono)	Hi-fi audio track	
			L	R
Regular broadcast (standard audio)	Either position	Standard audio	Standard audio	Standard audio
Regular+NICAM stereo (L, R)	OFF	Standard audio	Stereo L	Stereo R
	ON	Standard audio	Standard audio	Standard audio
Regular+NICAM dual mono (M1, M2)	OFF	Standard audio	M1	M2
	ON	Standard audio	Standard audio	Standard audio
Regular+NICAM mono	OFF	Standard audio	M1	M1
	ON	Standard audio	Standard audio	Standard audio

Note: NICAM audio programmes cannot be recorded on the normal audio track.



Mono Switch

- When a NICAM programme is being received, this switch can be used to select the desired type of sound to be recorded on the hi-fi audio track. This switch functions only when the Input Signal Selector is set to "TUNER". To record a NICAM programme, this switch must be set to "NICAM".

Note:
If NICAM broadcast signals are weak, the sound quality deteriorates remarkably. When the signals are extremely weak, the Audio Recording Mode Indicator(M1 ○ M2 ○ STEREO ○) goes off and the FM sound is recorded on the hi-fi track irrespective of the setting of this switch.

- If the Mono Switch is intentionally set to "MONO" even though a NICAM programme is being received, the indicator(s) remain lit.
- To record the regular sound (ordinary normal sound) on the FM audio tracks when a NICAM programme is received, set the Mono Switch to "On".
- When a NICAM programme is received and the sound is distorted due to inferior reception conditions, set the Mono Switch to "On".

SECTION 2
ADJUSTMENT PROCEDURES

2-1. DISASSEMBLE METHOD

2-1-1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

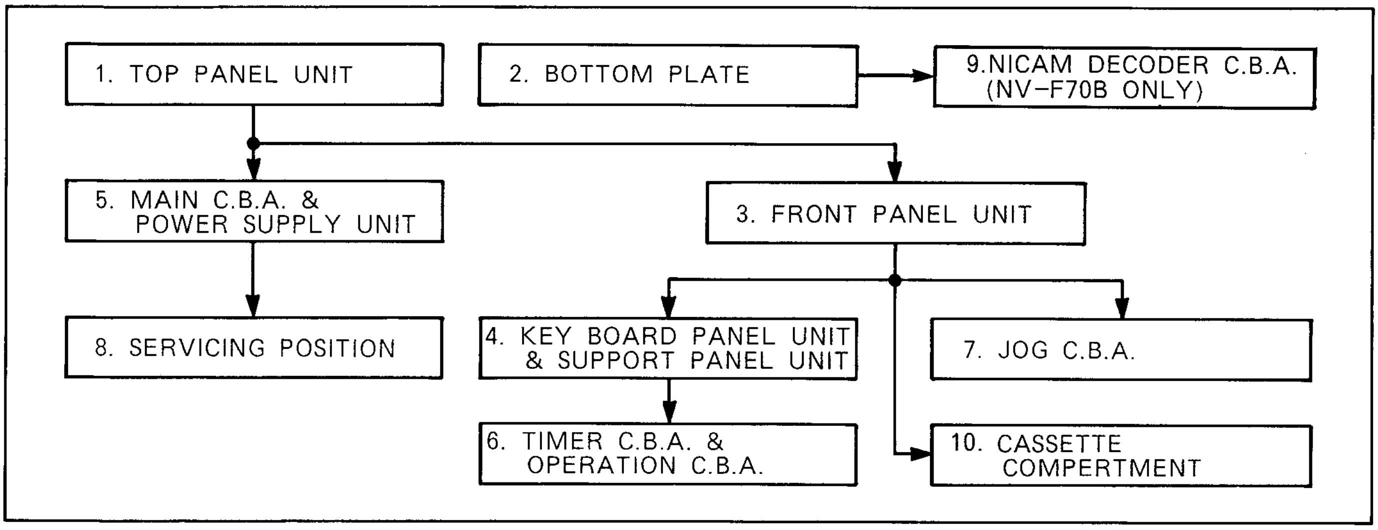

1. TOP PANEL UNIT
2. BOTTOM PLATE
9.NICAM DECODER C.B.A. (NV-F70B ONLY)
5. MAIN C.B.A. & POWER SUPPLY UNIT
3. FRONT PANEL UNIT
8. SERVICING POSITION
4. KEY BOARD PANEL UNIT & SUPPORT PANEL UNIT
7. JOG C.B.A.
6. TIMER C.B.A. & OPERATION C.B.A.
10. CASSETTE COMPERTMENT

Fig. D1

2-1-2. DETAIL OF DISASSEMBLE METHOD

1. REMOVAL OF THE TOP PANEL UNIT

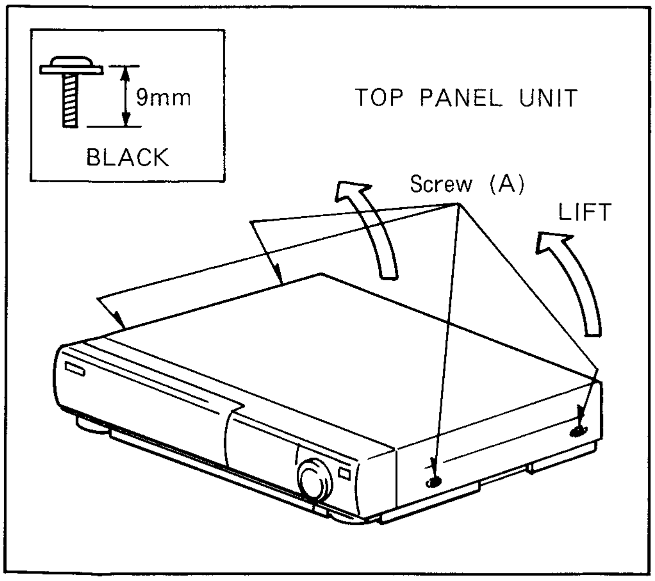

9mm
BLACK
TOP PANEL UNIT
Screw (A)
LIFT

Fig. D2

Remove...4 Screws (A)

2. REMOVAL OF THE BOTTOM PLATE

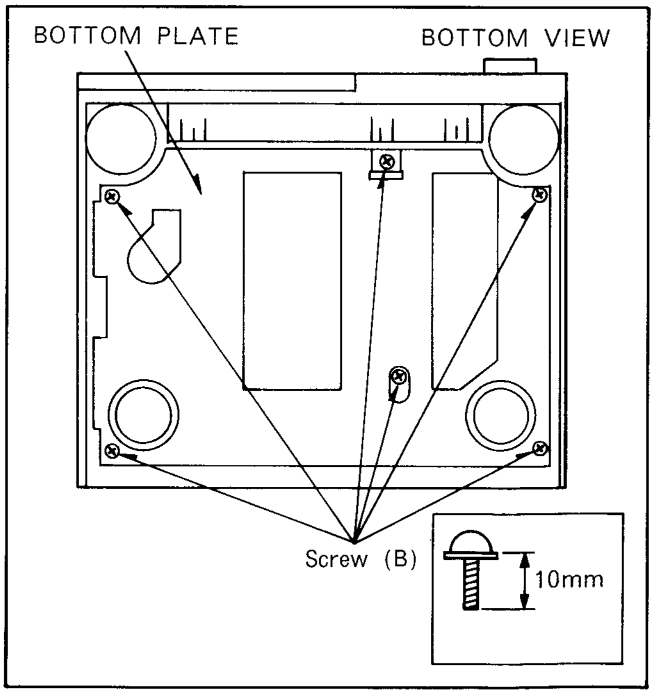

BOTTOM PLATE
BOTTOM VIEW
Screw (B)
10mm

Fig. D3

Remove...6 Screws (B)

3. REMOVAL OF THE FRONT PANEL UNIT

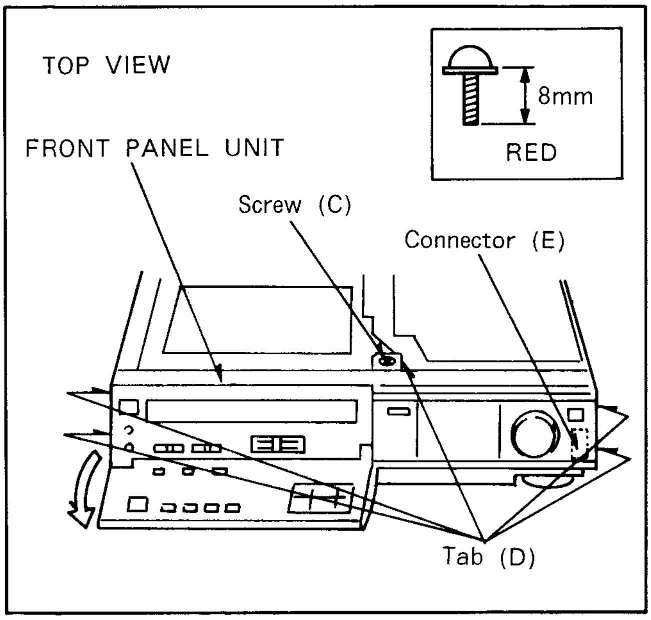

TOP VIEW
8mm
RED
FRONT PANEL UNIT
Screw (C)
Connector (E)
Tab (D)

Fig. D4

Remove...Screw (C)
Unlock...5 Tabs (D)
Disconnect...Connector (E)

4. REMOVAL OF THE KEY BOARD PANEL UNIT AND SUPPORT PANEL UNIT

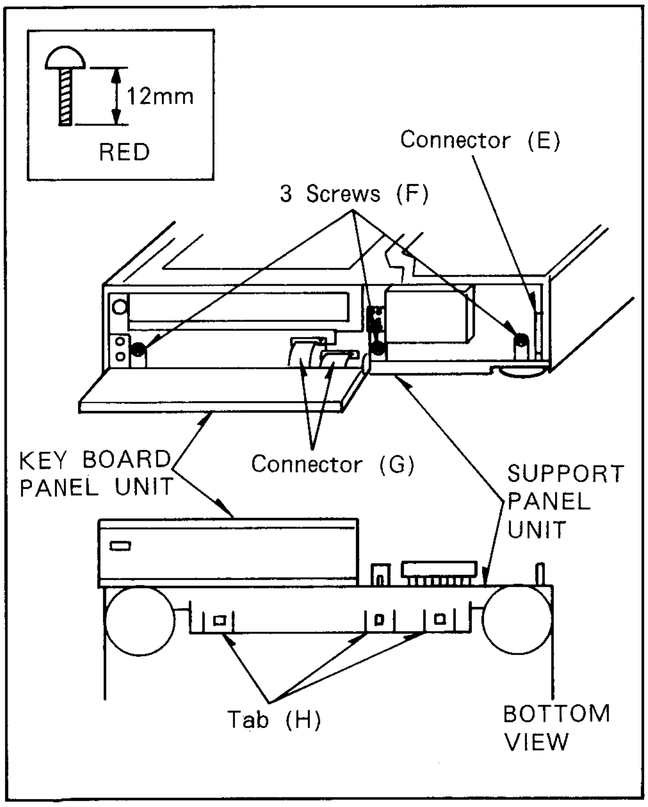

12mm
RED
Connector (E)
3 Screws (F)
KEY BOARD PANEL UNIT
Connector (G)
SUPPORT PANEL UNIT
Tab (H)
BOTTOM VIEW

Fig. D5

Remove...3 Screws (F)
Disconnect...2 Connectors (G)
Unlock...3 Tabs (H)

5. REMOVAL OF THE MAIN C.B.A. AND POWER SUPPLY UNIT

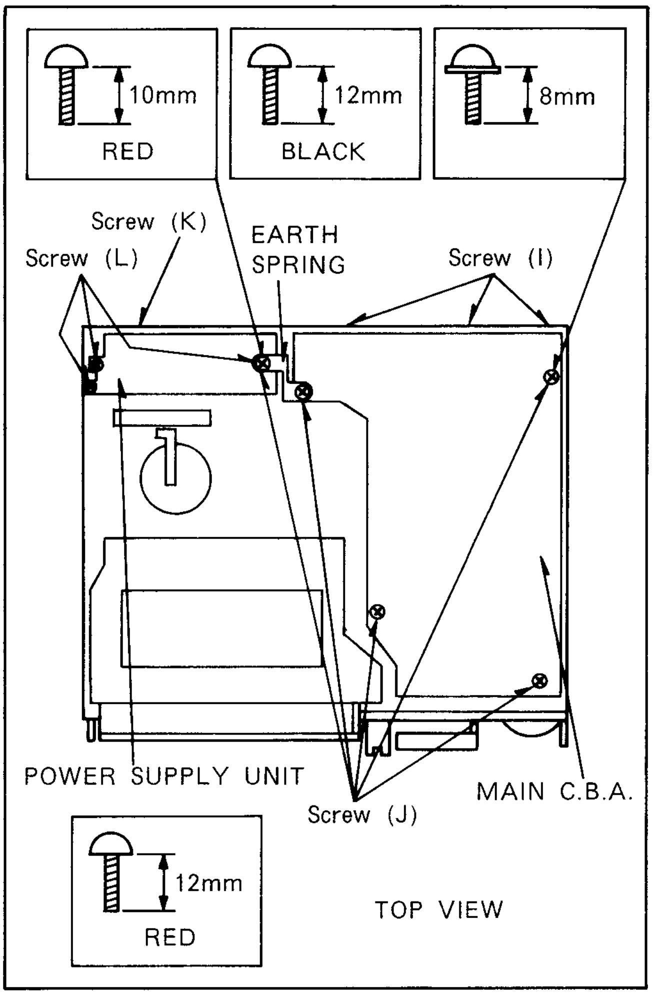

10mm
RED
12mm
BLACK
8mm
Screw (K)
Screw (L)
EARTH SPRING
Screw (I)
POWER SUPPLY UNIT
Screw (J)
MAIN C.B.A.
12mm
RED
TOP VIEW

Fig. D6

REMOVAL OF THE MAIN C.B.A.

Remove... 3 Screws (I), 5 Screws (J) and EARTH SPRING

REMOVAL OF THE POWER SUPPLY UNIT

Remove... Screw (K), 3 Screws (L) and EARTH SPRING

6. REMOVAL OF THE OPERATION C.B.A. and TIMER C.B.A.

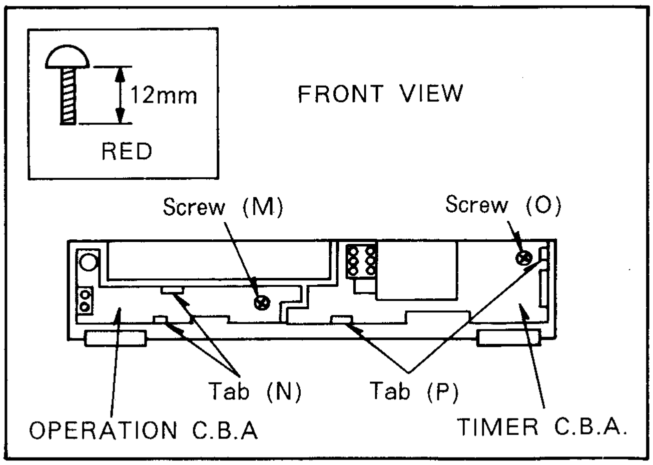

12mm
RED
FRONT VIEW
Screw (M)
Screw (O)
Tab (N)
Tab (P)
OPERATION C.B.A
TIMER C.B.A.

Fig. D7

REMOVAL OF THE OPERATION C.B.A.

Remove...Screw (M)
Unlock...2 Tabs (N)

REMOVAL OF THE TIMER C.B.A.

Remove...Screw (O)
Unlock...2 Tabs (P)

7. REMOVAL OF THE JOG C.B.A.

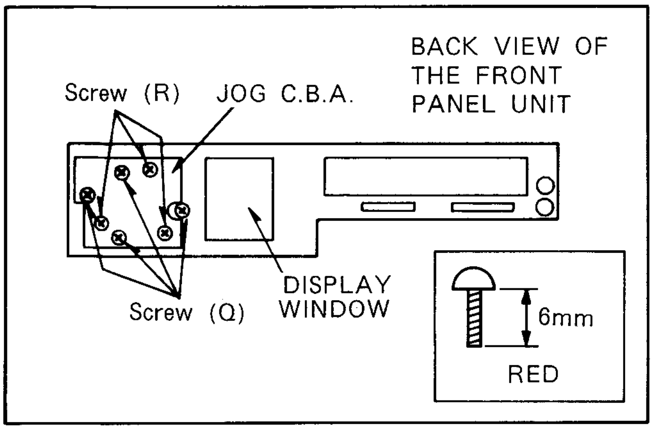

BACK VIEW OF THE FRONT PANEL UNIT
Screw (R)
JOG C.B.A.
DISPLAY WINDOW
Screw (Q)
6mm
RED

Fig. D8

Remove...4 Screws (Q)
(3 screws (R)...For the JOG DIAL)

8. SERVICING

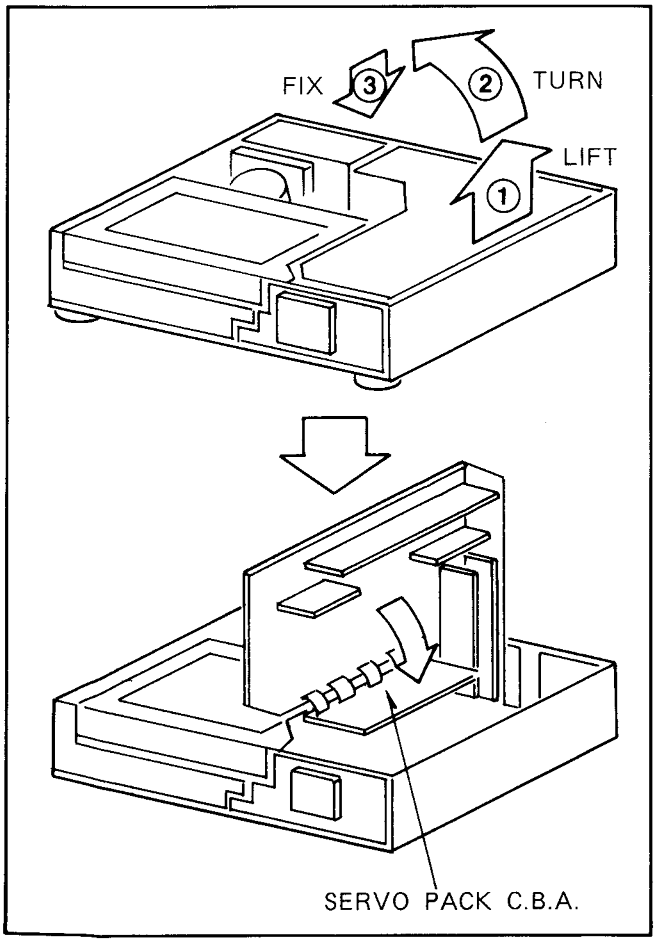

FIX
③
②
TURN
LIFT
①
SERVO PACK C.B.A.

Fig. D9

9. REMOVAL OF THE NICAM DECODER C.B.A. (NV-F70B ONLY)

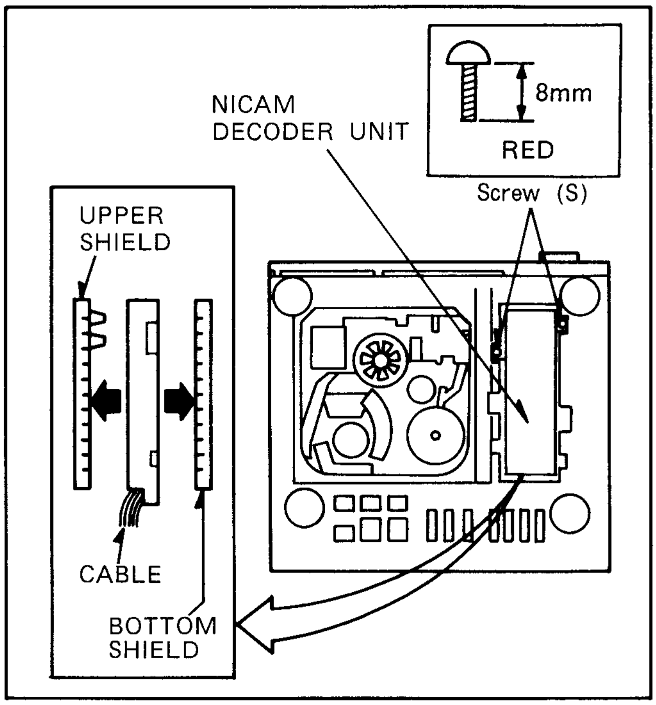

NICAM DECODER UNIT
8mm
RED
Screw (S)
UPPER SHIELD
CABLE
BOTTOM SHIELD

Fig. D10

Remove...2 Screws (S) and SHIELD

10. REMOVAL OF THE CASSETTE COMPERTMENT

Remove 2 screws (T) and slide the cassette holder until appearing 2 screws (U) by turning (clockwise) the capstan rotor unit (located in the bottom side) and then remove 2 screws (U).
Remove the flexible wire from connector P1503 mounted on Take-up photo Tr. C.B.A., then carefully pull out the cassette compartment.

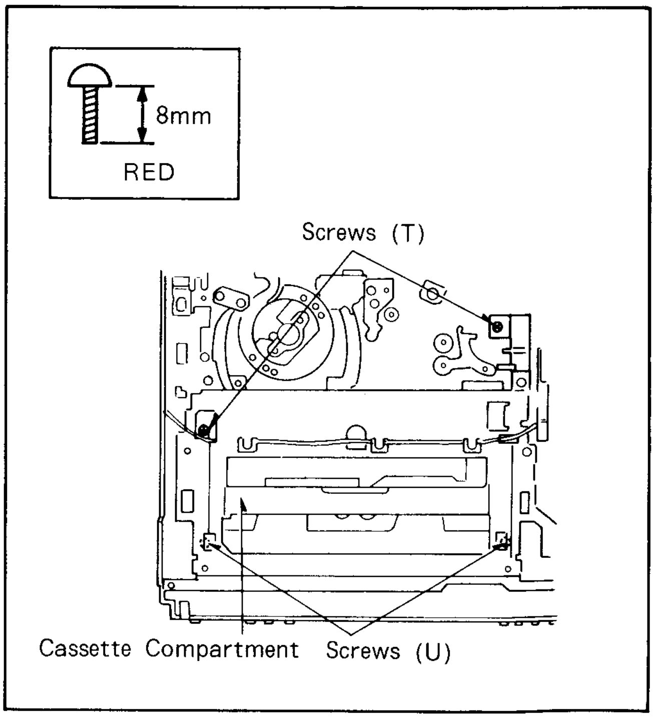

8mm
RED
Screws (T)
Cassette Compartment
Screws (U)

Fig. D11

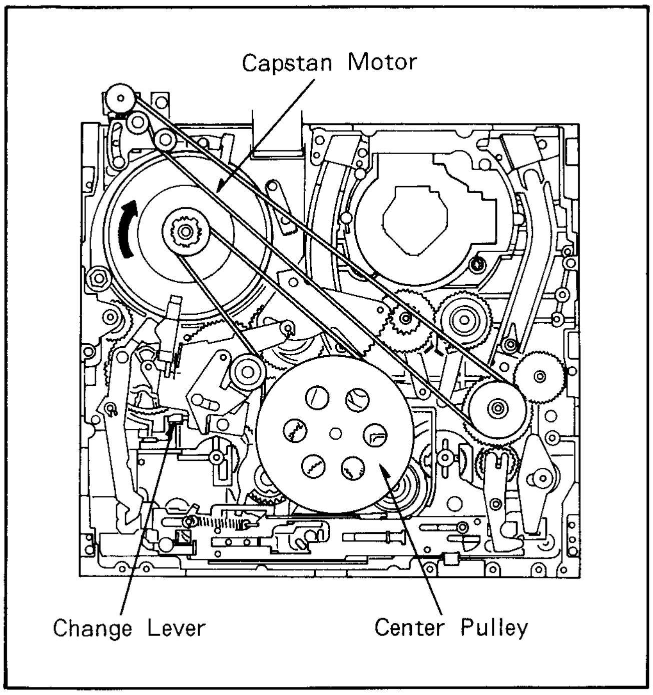


Fig. D12

2-2. MECHANICAL ADJUSTMENT PROCEDURES

2-2-1. TENSION ADJUSTMENT OF TIMING BELT FOR CAPSTAN MOTOR

(Equipment Required)
Fan Type Tension Gauge (VFK62)

(Specification) 40 +- 5g

1. Loosen a screw (A) slightly by using the screwdriver.
2. Set the Fan Type Tension Gauge to the direction indicated by the arrow (B) as shown in Fig. M1.
3. Tighten a screw (A) when the reading of the Fan Type Tension Gauge becomes within 40 +- 5g.

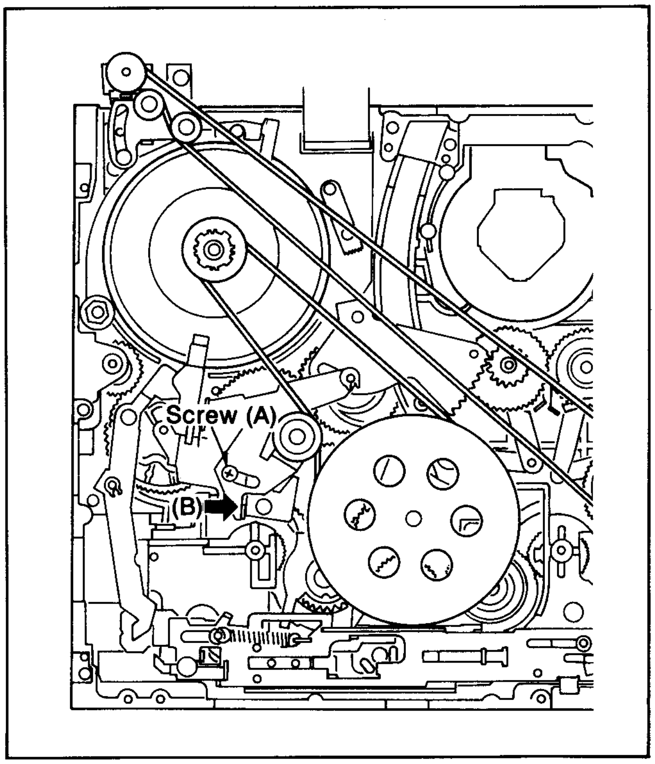


Fig. M1

2-2-2. TENSION ADJUSTMENT FOR REV MOTOR TIMING BELT

(Equipment Required)
Fan Type Tension Gauge (VFK62)

(Specification) 225 +- 25g

1. Loosen a screw (C) by using the screwdriver.
2. Set the Fan Type Tension Gauge to the direction indicated by arrow (D) as shown in Fig. M2.
3. Tighten a screw (C) when the reading of the Fan Type Tension Gauge becomes within 225 +- 25g.

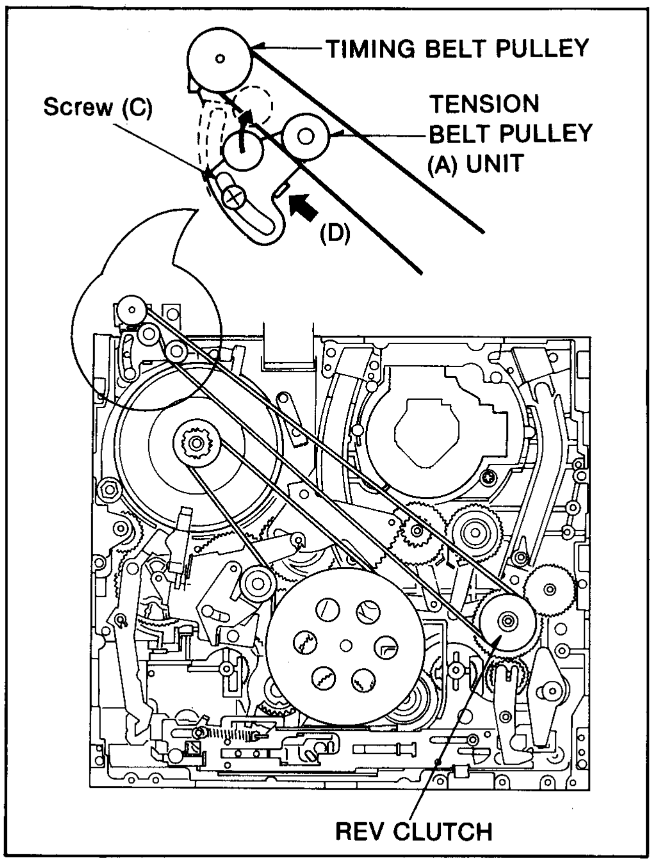

TIMING BELT PULLEY
Screw (C)
TENSION BELT PULLEY (A) UNIT
(D)
REV CLUTCH

Fig. M2

2-2-3. POSITION ADJUSTMENT OF TENSION POST

(Equipment Required)
Tension Post Adjustment Plate (VFK0387)
Hex. Wrench : 2mm (Hex Wrench Set : VFK0326)

1. Disconnect the AC plug.
2. Remove the cassette compartment and disconnect the flexible (flat) cable from P1508.
3. Turn the Capstan Motor to the clockwise while the change lever is being pushed until the loading is completed as shown in Fig. M3.

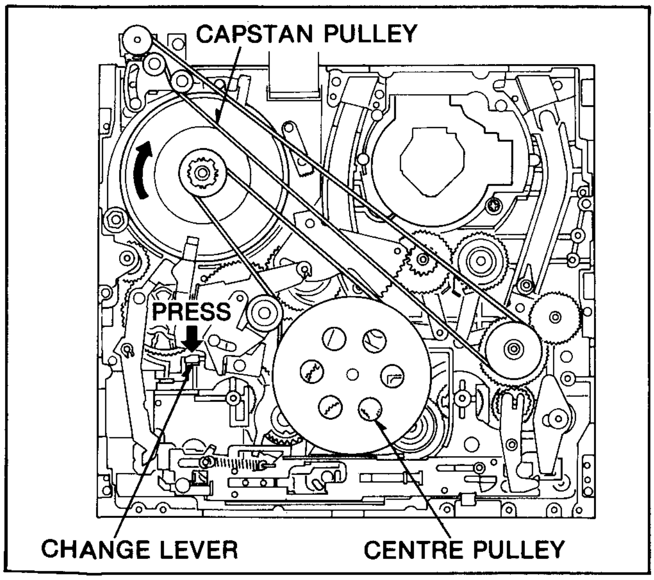

CAPSTAN PULLEY
PRESS
CHANGE LEVER
CENTRE PULLEY

Fig. M3

4. Place the Adjustment Plate and insert the hex wrench into the hole of Tension Band Fastener as shown in Fig. M4.
5. Adjust the hole of Tension Band Fastener by using the hex wrench so that the Tension Post just touches the fixture of Adjustment Plate.
6. After the Adjustment, turn the Capstan Motor until the unloading is completed.

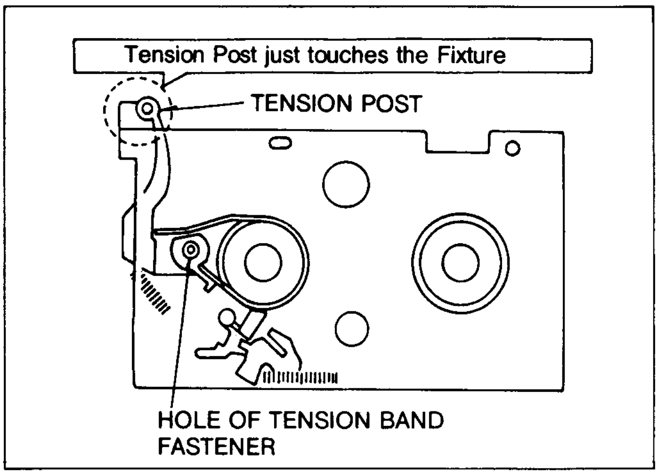

Tension Post just touches the Fixture
TENSION POST
HOLE OF TENSION BAND FASTENER

Fig. M4

Note:
When you assemble cassette compartment,refer to item 2–3–13 Reinstallation of Cassette Compartment.

2-2-4. MEASUREMENT AND ADJUSTMENT OF BACK TENSION

(Equipment Required)
Back Tension Meter (Tentelometer or VFK0132)
VHS Cassette Tape (180 minutes tape: PAL/SECAM)
(specification) 22.5–27.5g

1. Playback the cassette tape from the beginning and wait until the tape movement get the stabilization. (for approx. 10∼20 seconds)
2. Insert the Back Tension Meter into the path of a tape, and measure the back tension to be within specification as shown in Fig. M5.

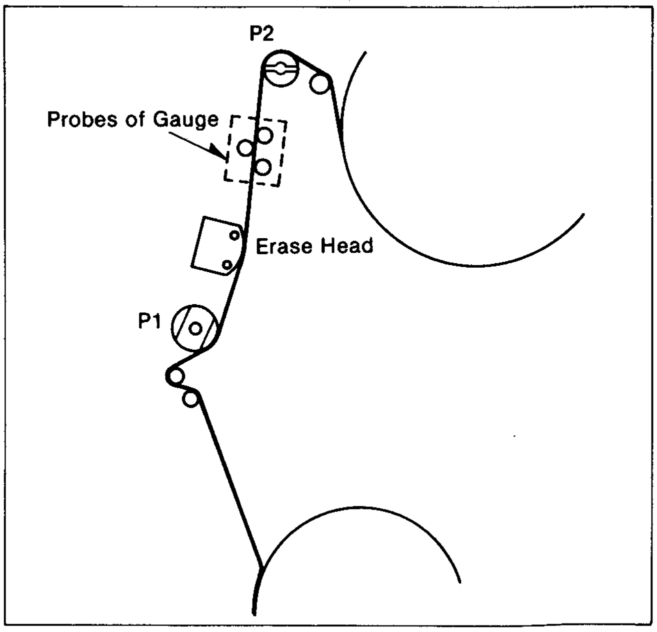

P2
Probes of Gauge
Erase Head
P1

Fig. M5 Measurement of Back Tension

Note:

1. While measuring, make sure that the three probes of the meter are all in good contact with the tape.
2. As the tension meter is very sensitive, we recommend taking 3 separate readings.
3. If it is out of specification, change the spring notch as shown in Fig. M6.

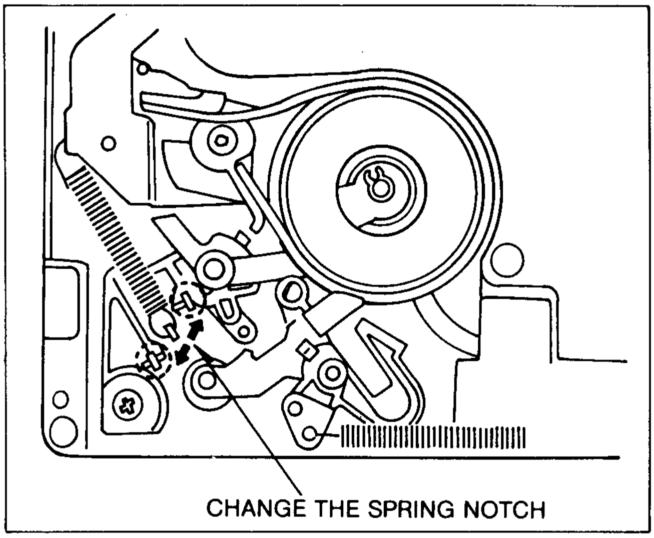


Fig. M6

2-2-5. HEIGHT ADJUSTMENT OF THE REEL TABLES

(Equipment Required)
Post Adjustment Plate
(VFK0191)
Reel Table Height Gauge (VFK0190)

(Specification) 0~0.2mm

1. Remove the cassette compartment.
2. Place the Post Adjustment Plate on the reel tables.
3. Place the Reel Table Height Gauge on the plate so that the scraper of the gauge touches the cut-out portion of the plate, then set the gauge to zero "0" as shown in Fig. M7.

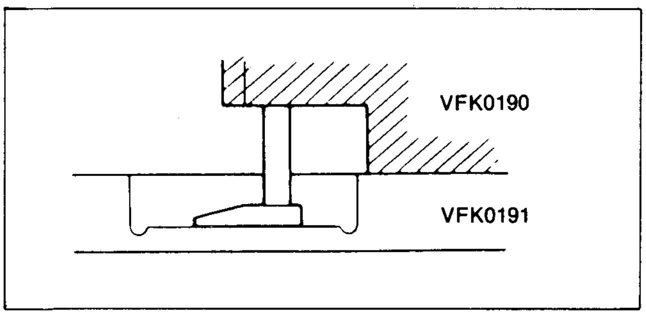


Fig. M7 Adjustment of Reel Table Height-(1)

4. Measure the meter indication of top surface of reel table as shown in Fig. M8. And then perform the same measurement and confirmation for the other reel table.

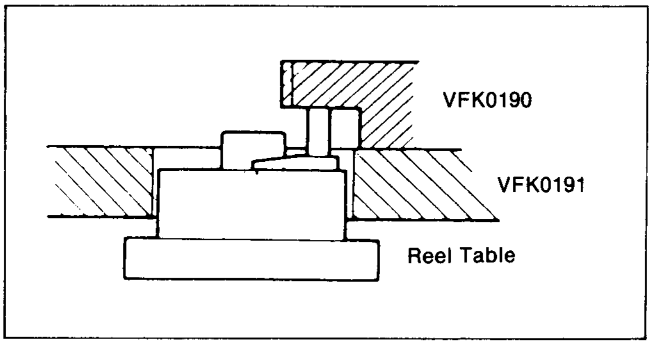


Fig. M8 Adjustment of Reel Table Height-(2)

5. If the difference is more than 0.2mm higher or lower, replace the poly-slider washer located under the reel table with one of the appropriate thickness. Reel washers are available in thickness of 0.2mm, 0.3mm and 0.5mm.

Washer Thickness	Part No.
0.2 mm	VMX1238
0.3 mm	VMX1239
0.5 mm	VMX1171

Fig. M9

2-2-6. ADJUSTMENT OF THE CAPSTAN THRUST GAP

(Equipment Required)
Reel Table Height Gauge (VFK0190)
Height Adjustment Jig
(VFK0344)

(Specification) 0.5 ~ 0.55mm

1. Turn a Thrust Adjust Screw slightly until the capstan rotor unit just touches the coil of the capstan stator unit.

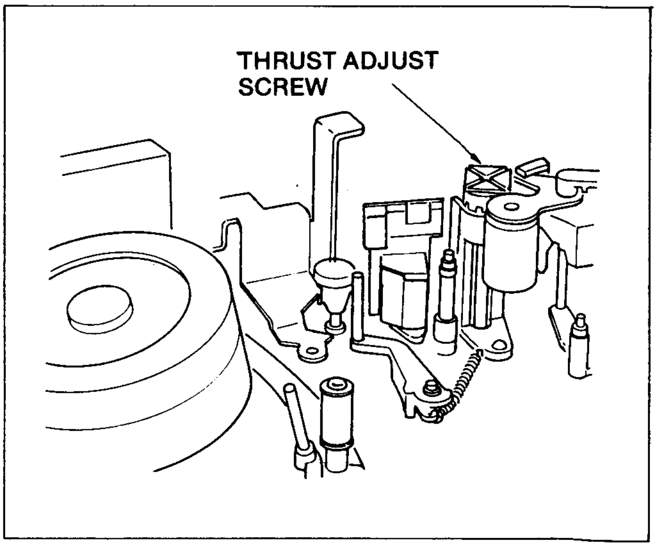


Fig. M10

2. Set the height adjustment Jig on the capstan Rotor unit.
3. Place the height gauge on the bottom case unit and set the height gauge to zero "0".

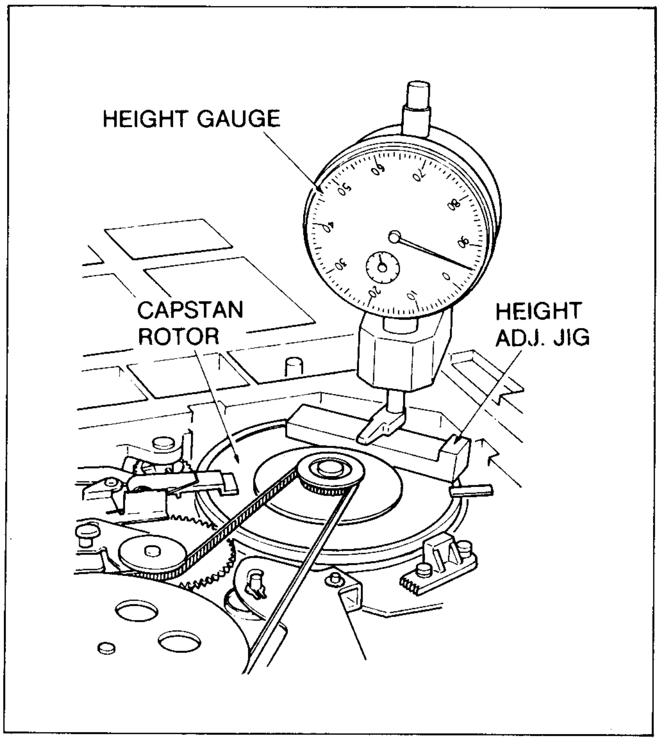

HEIGHT GAUGE
CAPSTAN ROTOR
HEIGHT ADJ. JIG

Fig. M11

4. Adjust a Thrust Adjust Screw so that the thrust gap becomes 0.5 ~ 0.55mm.

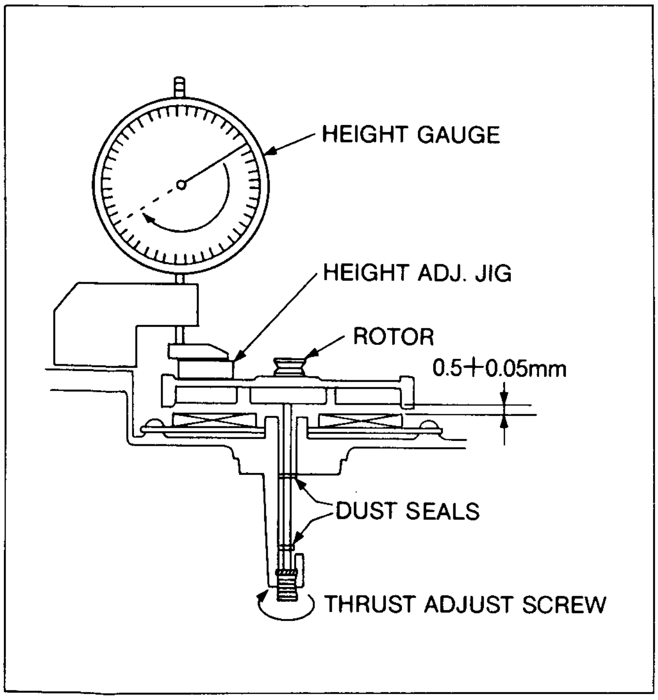

HEIGHT GAUGE
HEIGHT ADJ. JIG
ROTOR
0.5+0.05mm
DUST SEALS
THRUST ADJUST SCREW

Fig. M12

2-2-7. HEIGHT ADJUSTMENT OF TAPE GUIDE POST (P2 AND P3)

(Equipment Required)
Post Adjustment Plate
(VFK0191)
Reel Table Height Gauge (VFK0190)
Post Adjustment Screwdriver
(VFK0329)

1. Remove the cassette compartment.
2. Place the Post Adjustment Plate over the reel tables.
   Confirm that the Post Adjustment Plate is firmly seated as shown in Fig. M13.

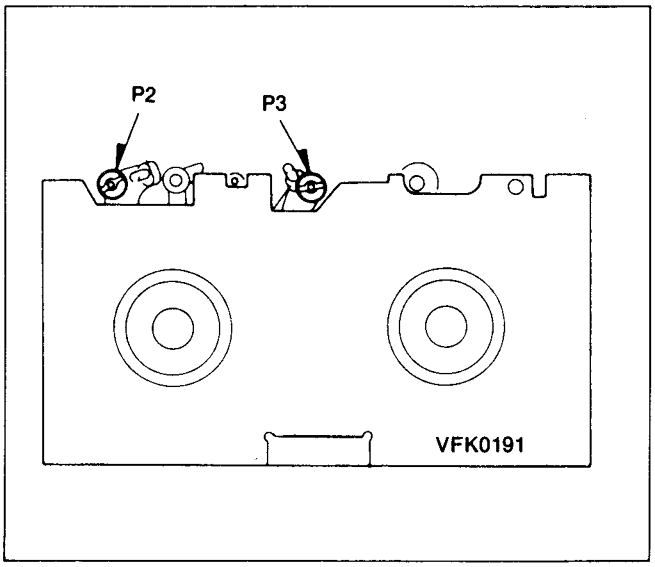
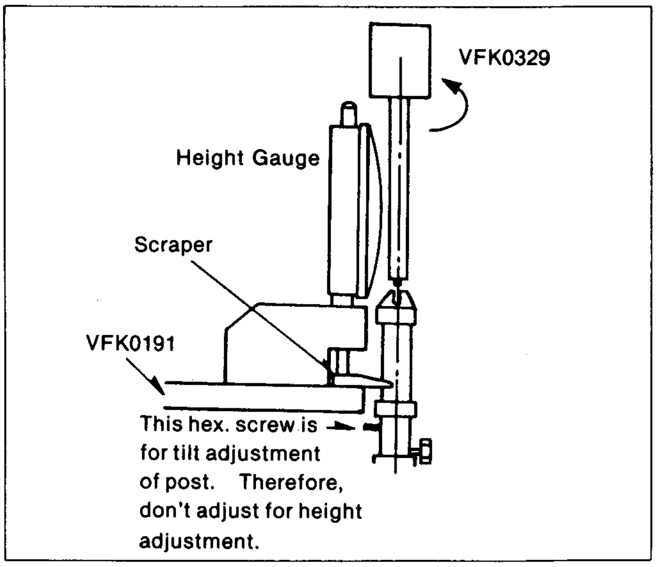

P2
P3
VFK0191

Fig. M13

3. Lower 2 tape guide posts (P2 and P3) by turning the Post Adjustment screwdriver so that the condition of height becomes as shown in Fig. M14. That is, the lower edge of Tape guide should be lower than surface of Adjustment Plate.


VFK0329
Height Gauge
Scraper
VFK0191

This hex. screw is for tilt adjustment of post. Therefore, don't adjust for height adjustment.

Fig. M14

4. Place the scraper of Reel Table Height Gauge as shown in Fig. M15.
   Set the gauge to zero, then raise the post slowly until the lower tape guide just touches the bottom of the scraper. Use the gauge to determine the exact point at which the lower tape guide touches the scraper.

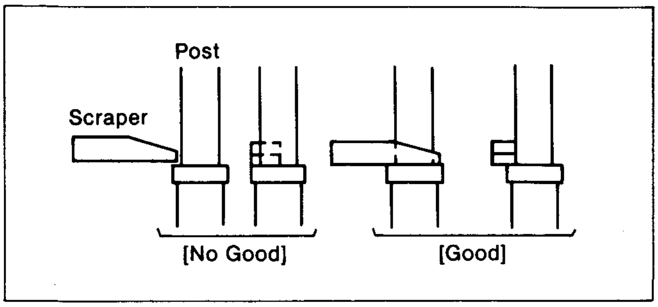


Fig. M15

Note:
After the adjustment, install the cassette compartment referring the item 2–3–13 Reinstallation of cassette compartment.

2-2-8. HEIGHT ADJUSTMENT OF THE PULL-OUT POST (P5 POST)

(Equipment Required)
Post Adjustment Plate
(VFK0191)
Reel Table Height Gauge (VFK0190)
Nut Driver (Purchase locally)

(Specification) –0.06 +– 0.01mm

Note:
Unless the replacement or adjustment of this post is required, the adjustment nut should not be turned.

1. Remove the cassette compartment.
2. Place the Post Adjustment Plate over the reel tables.
3. Turn the Capstan Motor to counterclockwise (loading direction) until the mechanical condition becomes as shown in Fig. M16.

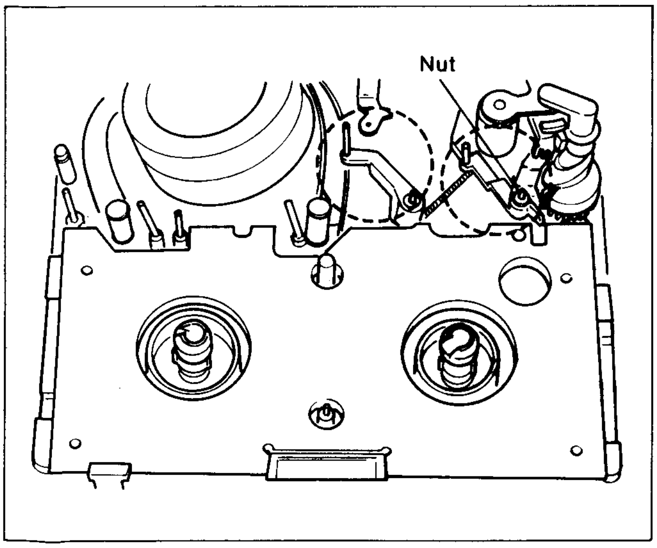


Fig. M16

4. Place the Reel Table Height Gauge on the Post Adjustment Plate and set the gauge to zero "0" as shown in Fig. M17.

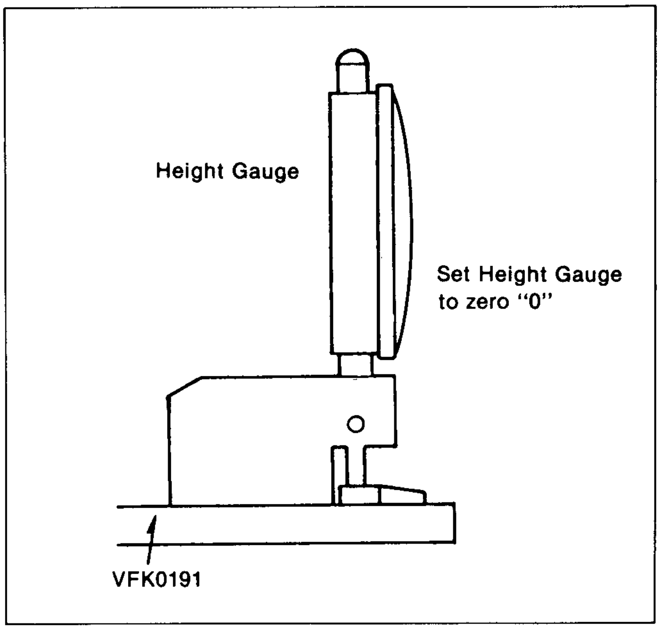


Fig. M17

5. Place the Reel Table Height Gauge as shown in Fig. M18 and turn the nut slowly until the gauge reads –0.06 +– 0.01mm.

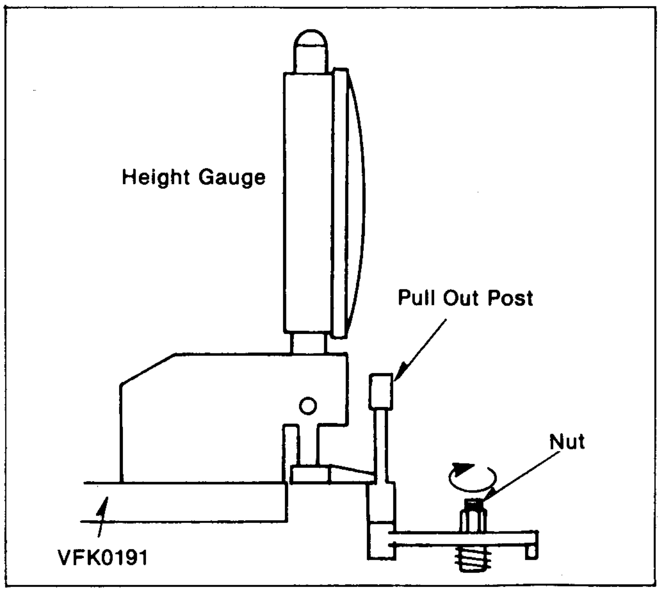


Fig. M18

6. After the adjustment, install the cassette compartment. (Refer to 2–3–13 Reinstallation of Cassette Compartment).
7. Play back a normal cassette tape and make sure that the edges of the tape are not curling at the bottom or top end of the posts P1, P2, P3, P4 and pull out post as shown in Fig. M19.

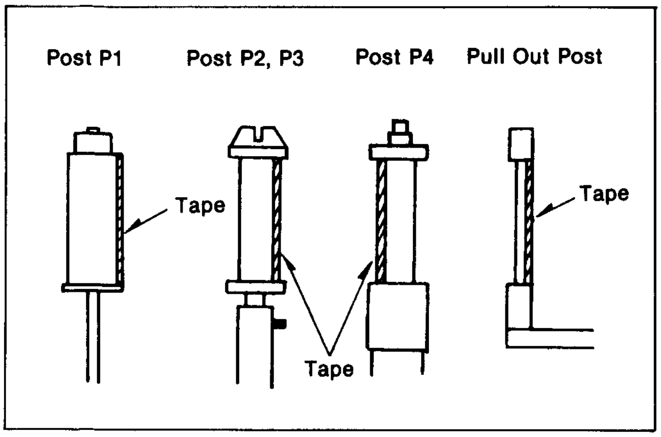

Post P1
Post P2, P3
Post P4
Pull Out Post
Tape
Tape
Tape

Fig. M19

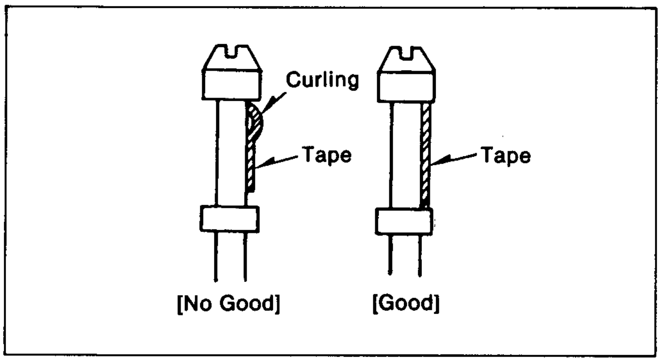

Curling
Tape
Tape
[No Good]
[Good]

Fig. M20

8. If curling appears, readjusts each post(except P1,P4).

2-2-9. TAPE INTERCHANGEABILITY ADJUSTMENT

Note:
Proceed the following procedures for Tape Interchangeability Adjustment to do it Correctly and Smoothly.

A. Confirmation and Adjustment of P2 and P3 Posts.
B. Tilt Adjustment of A/C Head.
C. Height Adjustment of A/C Head.
D. Azimuth Adjustment of A/C Head.
E. Horizontal Position of A/C Head.

If the Tape Interchangeability Adjustment is not perfect, repeat the above procedures from A to E.

A. Confirmation and Adjustment of P2 and P3 Posts

(Equipment Required)
Alignment Tape PAL (VFJ8125H3F)
Post Adjustment Screwdriver
(VFK0329)

1. Set the tracking control into the fix position. (by pressing the tracking (+) and (−) button simultaneously in Digital Tracking OFF position)
And connect the oscilloscope to the output of the Head Amp as shown in Fig. M21.

Note:
To get a stable waveform of the Head Amp output on the oscilloscope, use the head switching pulse as a triggering signal as shown in Fig. M21.

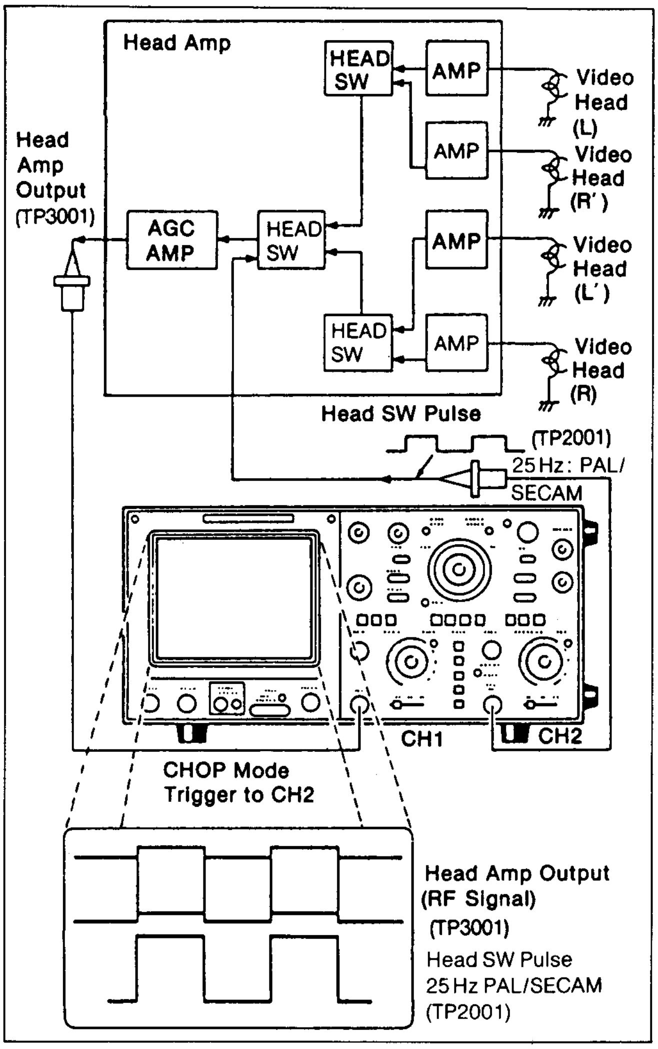

Head Amp
HEAD SW
AMP
Video Head (L)
AMP
Video Head (R')
Head Amp Output (TP3001)
AGC AMP
HEAD SW
AMP
Video Head (L')
HEAD SW
AMP
Video Head (R)
Head SW Pulse
(TP2001)
25Hz: PAL/SECAM
CH1
CH2
CHOP Mode
Trigger to CH2
Head Amp Output (RF Signal) (TP3001)
Head SW Pulse 25Hz PAL/SECAM (TP2001)

Fig. M21 Connection of Oscilloscope

2. Play back the alignment tape (PAL:VFJ8125H3F).
3. If the RF envelope appears like example "A" or "B" in Fig. M22 then adjustment of the tape guide post (P2 : Entrance) is necessary.
4. Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown in Fig. M22−"C".

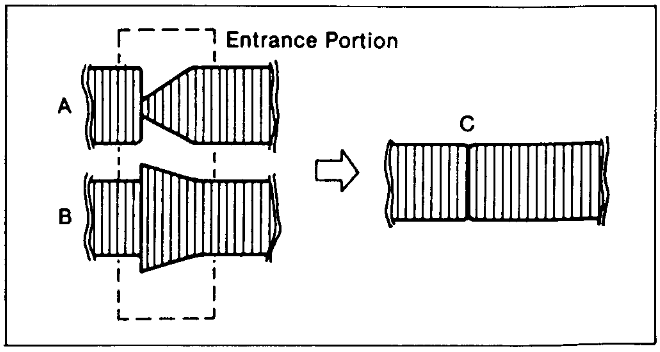

Entrance Portion
A
B
C

Fig. M22

5. If the RF envelope appears like example "D" or "E" in Fig. M23, then adjustment of the tape guide post (P3: Exit) is necessary.
6. Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in Fig. M23–"F".

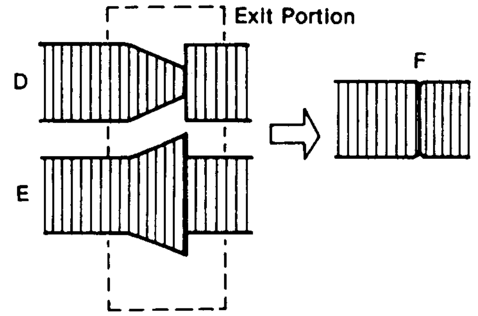

Exit Portion
D
E
F

Fig. M23

7. Turn the Tracking VR fully clockwise and counter clockwise. The output envelop should vary nearly parallel with other condition as shown in Fig. M24.
8. Turn the Tracking VR into centre fix position and adjust for maximum RF envelope.
   If the RF envelope does not meet these specifications,
   V1/V>=0.7 , V2/V>=0.8 ,
   then repeat steps 1–8 again.

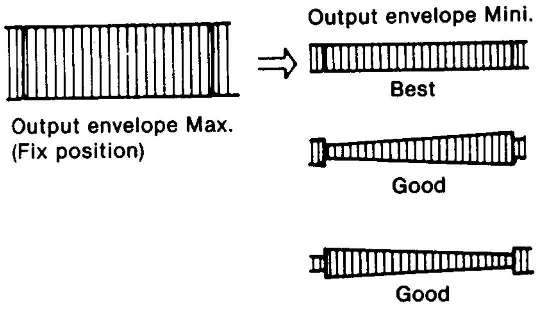

Output envelope Mini.
Best
Output envelope Max.
(Fix position)
Good
Good

Fig. M24

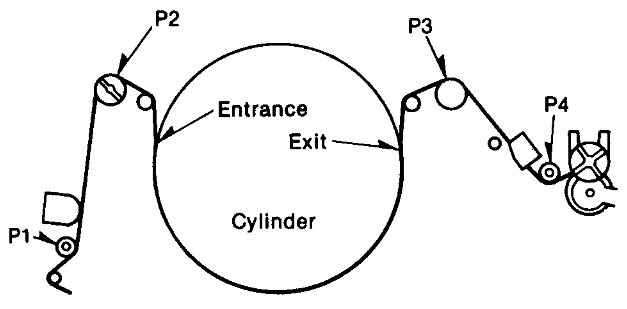

P2
P3
P4
Entrance
Exit
Cylinder
P1

Fig. M25 Loading of Posts

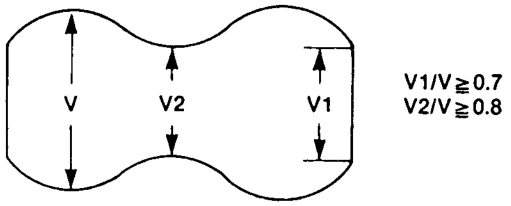

V
V2
V1
V1/V≧0.7
V2/V≧0.8

Fig. M26 Spec. of Envelope Figure

B. TILT ADJUSTMENT OF A/C HEAD

Note:
This procedure should be performed after replacing the A/C HEAD and pressure roller.

Playback the beginning portion of blank cassette tape and confirm that the tape runs between lower and upper limiter of P4 post. If there is waving or frilling in the lower edge or top edge of the tape, correct the tilt of the A/C head by turning the screw (B) located behind the A/C head.

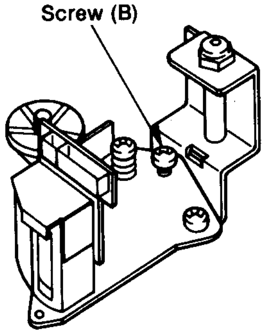


Fig. M27

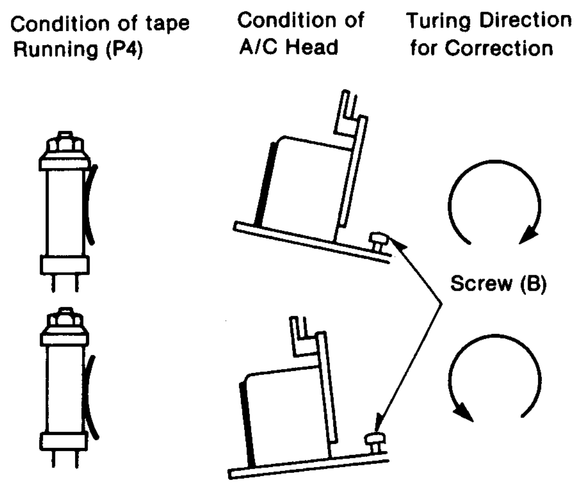

Condition of tape Running (P4)
Condition of A/C Head
Turing Direction for Correction
Screw (B)

Fig. M28

Note:
After Tilt adjustment of A/C head, height adjustment of A/C head is required.

C. HEIGHT ADJUSTMENT OF A/C HEAD

Note:
This procedure should be performed only when the A/C Head is replaced.

Equipment Required:
Check Light (VFK0343)
Nut Driver (Purchase locally)

With the tape running, look at the lower edge of the control head by using the check light and check if the lower edge of tape runs along the lower edge of the control head.
If it doesn't,slightly turn the nut (C) behind the A/C Head (Fig. M29) to either lower or raise the A/C head so that the tape runs along the lower edge of the control head.
Turn the nut (C) clockwise to lower the head, and counter-clockwise to raise it.

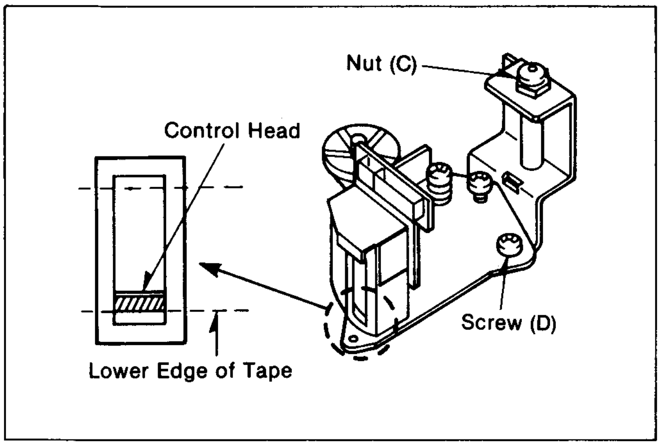


Fig. M29

D. AZIMUTH ADJUSTMENT OF A/C HEAD

Note:
This procedure should be performed only when the A/C Head is replaced and posts height are readjusted.

Equipment Required:
Alignment Tape PAL (VFJ8125H3F)

1. Connect the oscilloscope to the audio output on the rear panel.
2. Play back the 2nd portion (Normal Audio 6KHz) of the alignment tape (PAL:VFJ8125H3F).
3. Adjust the screw (D) so that the output level becomes maximum.

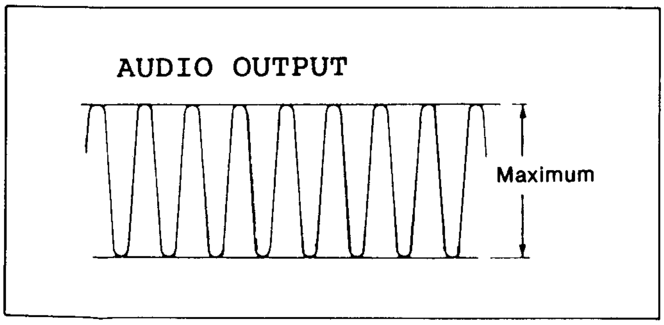


Fig. M30

E. HORIZONTAL POSITION ADJUSTMENT OF A/C HEAD HORIZONTAL POSITION

Note:
This procedure should be performed only when the A/C head is replaced, and after performing the tape interchangeability adjustment.

Equipment Required:
H-Position Adjustment Screwdriver (VFK0328)
Alignment Tape PAL (VFJ8125H3F)

1. Set the Tracking Control VR to the centre fix position.(By pressing the tracking (+) and (−) button simultaneously in Digital Tracking OFF position).
2. Connect the oscilloscope to the output of Head Amp. (Refer to Fig. M21)

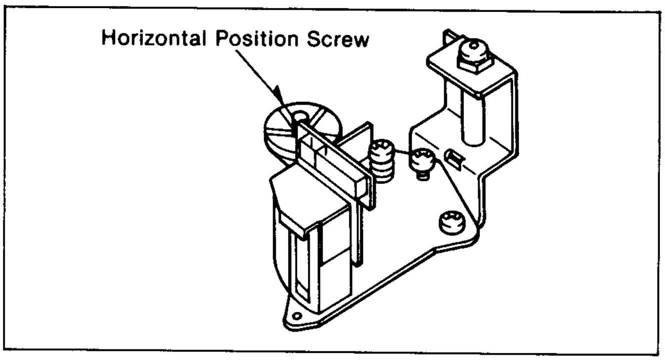


Fig. M31

3. Play back the alignment tape (PAL:VFJ8125H3F).
4. Adjust the Horizontal Position Screw of A/C head so that the RF signal becomes maximum level.

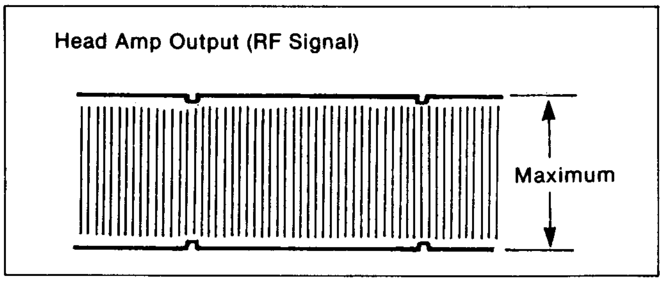
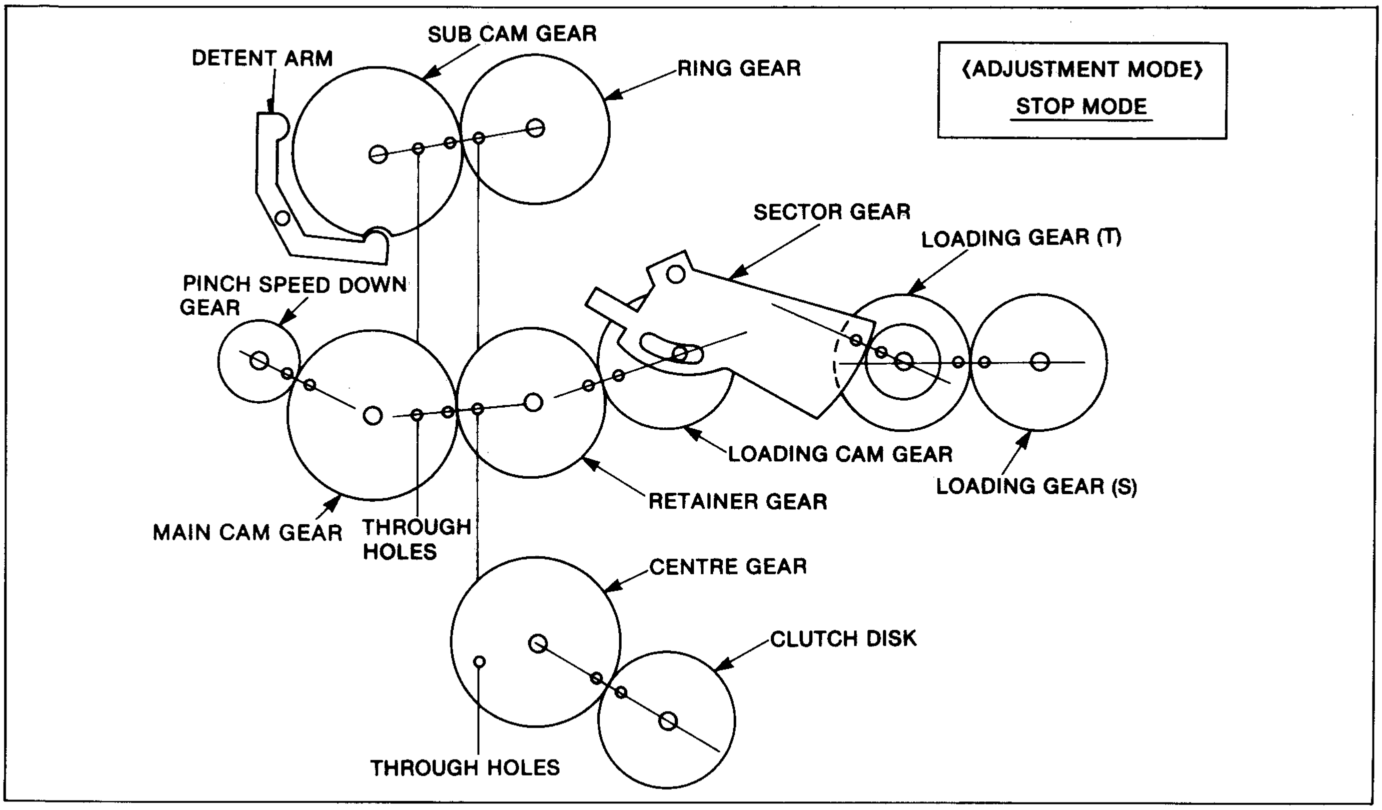


Fig. M32

2-3. ASSEMBLY AND ADJUSTMENT PROCEDES OF MECHANISM

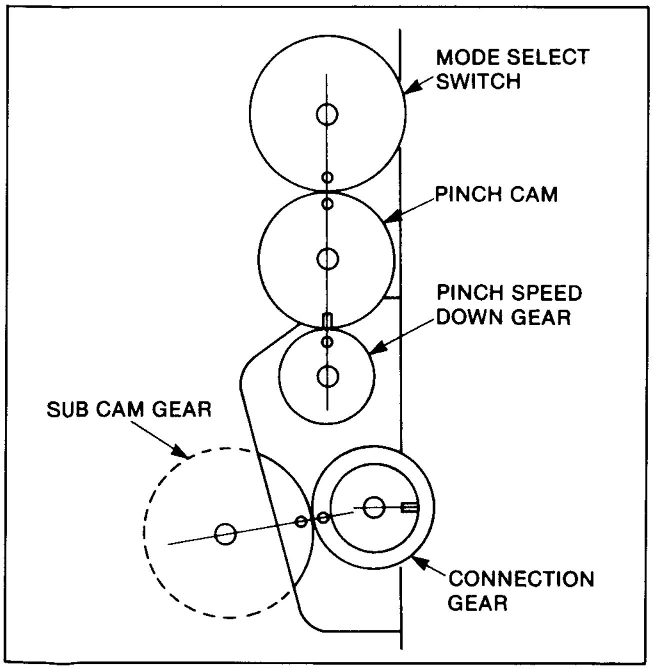
The mechanism of this model is mostly engaged to the System Control Circuit, through the mode select switch.
Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are not fixed properly, the unit will be unloaded or compulsorily stopped.
And it will result being damaged at any mechanical or electrical parts.



DETENT ARM
SUB CAM GEAR
RING GEAR
〈ADJUSTMENT MODE〉
STOP MODE
SECTOR GEAR
LOADING GEAR (T)
PINCH SPEED DOWN GEAR
LOADING CAM GEAR
LOADING GEAR (S)
RETAINER GEAR
MAIN CAM GEAR
THROUGH HOLES
CENTRE GEAR
CLUTCH DISK
THROUGH HOLES

Fig. A1 Bottom View of Overall Mechanical Condition

The overall mechanical condition (alignment) of bottom and top view are shown in Fig. A1 and Fig. A2. This mechanical adjustment is Performed in STOP mode.
The detail of mechanical condition will be described later.

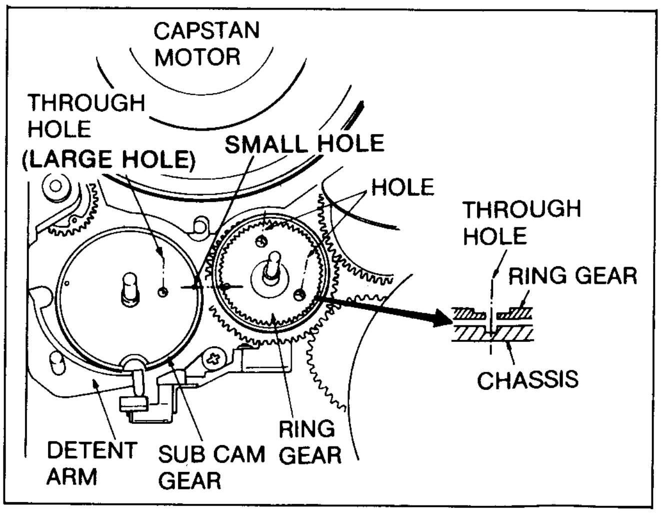


MODE SELECT SWITCH
PINCH CAM
PINCH SPEED DOWN GEAR
SUB CAM GEAR
CONNECTION GEAR

Fig. A2 Top View of Overall Mechanical Condition

2-3-1. ASSEMBLY PROCEDURES OF RING GEAR, SUB CAM GEAR AND DETENT ARM

1. Install the Ring Gear so that the hole of Ring Gear is exactly in line with the hole of chassis as shown Fig. A3.
2. Install the Sub Cam Gear so that the hole of Sub Cam Gear is exactly in line with the hole of chassis, at the same time, the small hole (located just outside of large hole) of Sub Cam Gear is exactly in line with the hole of Ring Gear.
3. Install the Detent Arm.



CAPSTAN MOTOR
THROUGH HOLE (LARGE HOLE)
SMALL HOLE
HOLE
THROUGH HOLE
RING GEAR
CHASSIS
DETENT ARM
SUB CAM GEAR
RING GEAR

Fig. A3

2-3-2. ASSEMBLY PROCEDURES OF MAIN CAM GEAR AND PINCH SPEED DOWN GEAR

1. Install the Pinch Speed Down Gear from top side of chassis.
2. Install the Main Cam Gear on to the Sub Cam Gear so that the small hole of Main Cam Gear is exactly in line with the small hole of Pinch Speed Down Gear.
   And the large hole of Main Cam Gear is exactly in line with the large hole of Sub Cam Gear as shown in Fig. A4.

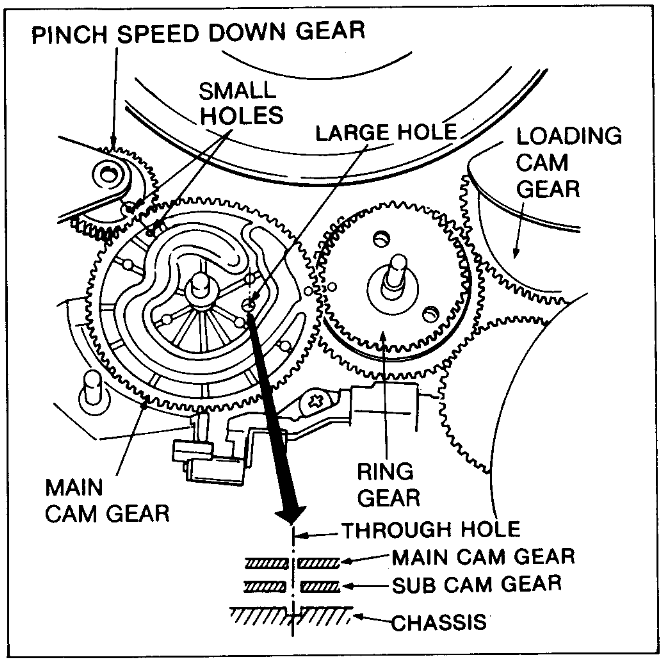

PINCH SPEED DOWN GEAR
SMALL HOLES
LARGE HOLE
LOADING CAM GEAR
MAIN CAM GEAR
RING GEAR
THROUGH HOLE
MAIN CAM GEAR
SUB CAM GEAR
CHASSIS

Fig. A4

2-3-3. ASSEMBLY PROCEDURES OF LOADING CAM GEAR AND RETAINER GEAR

1. Install the Loading Cam Gear so that the end of Sub Loading Arm comes to the rift (A) of Loading Cam Gear as shown in Fig. A5.

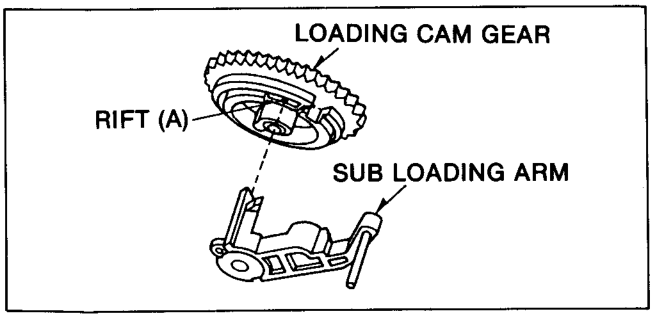

LOADING CAM GEAR
RIFT (A)
SUB LOADING ARM

Fig. A5

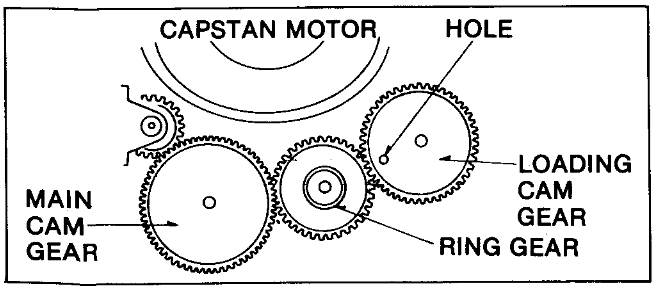

CAPSTAN MOTOR
HOLE
MAIN CAM GEAR
LOADING CAM GEAR
RING GEAR

Fig. A6

2. Install the Retainer Gear on to the Ring Gear so that the hole of Retainer Gear is exactly in line with the hole of Main Cam Gear, at this time, this hole of Retainer Gear also is exactly in line with the hole of Ring Gear. At the same time, another hole of Retainer Gear is exactly in line with the hole of Loading Cam Gear as shown in Fig. A7.

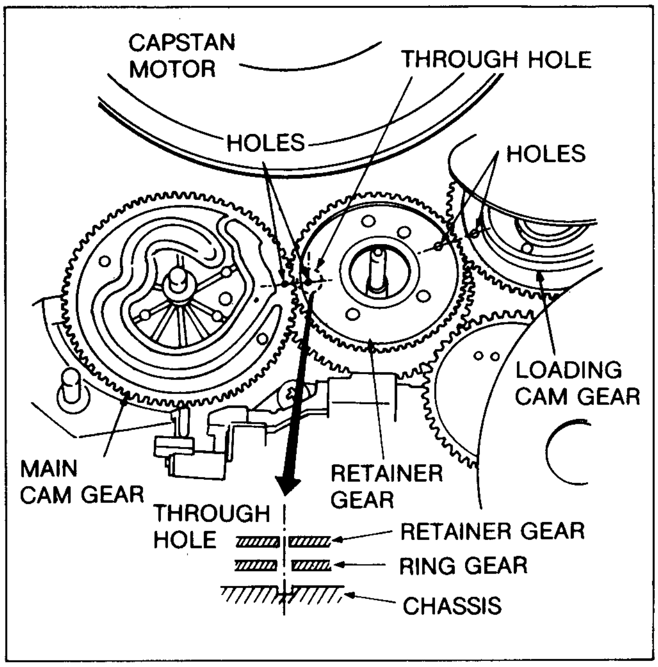

CAPSTAN MOTOR
THROUGH HOLE
HOLES
HOLES
LOADING CAM GEAR
MAIN CAM GEAR
RETAINER GEAR
THROUGH HOLE
RETAINER GEAR
RING GEAR
CHASSIS

Fig. A7

2-3-4. ASSEMBLY PROCEDURES OF CENTER GEAR

1. Install the Centre Gear on to the Retainer Gear so that the hole of Center Gear is exactly in line with the hole of Retainer Gear, at this time, another hole of Center Gear is exactly in line with the small hole of Clutch Disk, then insert the cut washer.

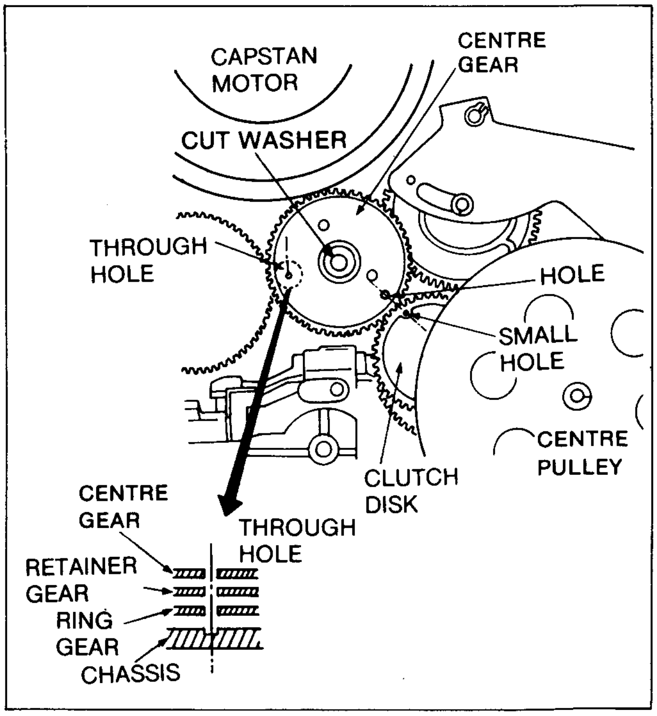

CAPSTAN MOTOR
CENTRE GEAR
CUT WASHER
THROUGH HOLE
HOLE
SMALL HOLE
CENTRE PULLEY
CLUTCH DISK
CENTRE GEAR
THROUGH HOLE
RETAINER GEAR
RING GEAR
CHASSIS

Fig. A8

2-3-5. ASSEMBLY PROCEDURES OF MAIN LEVER (1) UNIT AND CAM FOLLOWER ARM UNIT

1. Install the Main Lever (1) Unit and then insert the cut washers and hitches the spring as shown in Fig. A9.

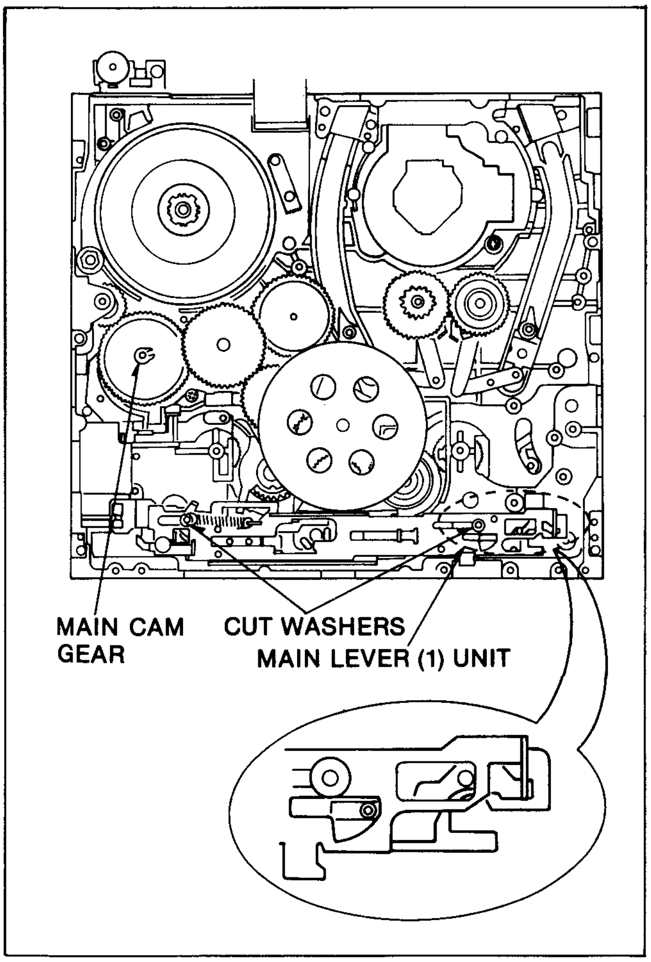

MAIN CAM GEAR
CUT WASHERS
MAIN LEVER (1) UNIT

Fig. A9

2. Install the Cam Follower Arm Unit so that the pin of Cam Follower Arm insert to the groove of Main Cam Gear then insert a retaining ring.

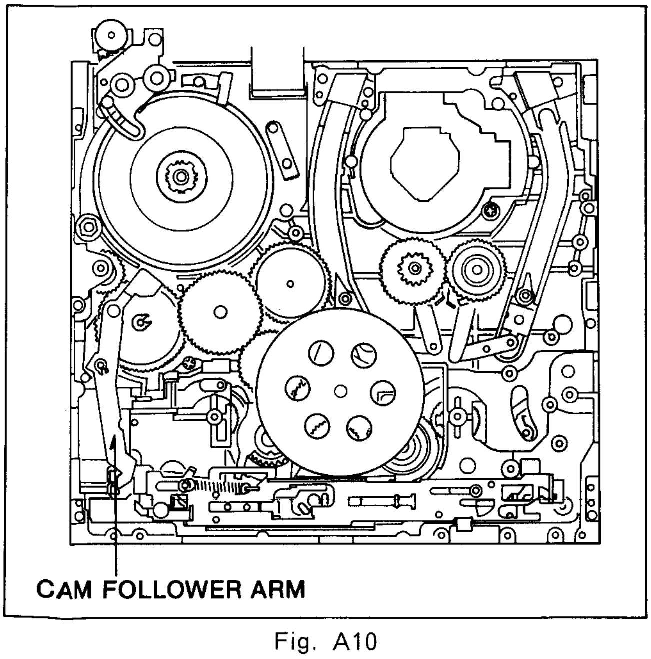

CAM FOLLOWER ARM

Fig. A10

2-3-6. ASSEMBLY PROCEDURES OF LOADING GEAR (T), LOADING GEAR (S), SECTOR GEAR, TENSION ROLLER UNIT AND SS BRAKE ARM UNIT

1. Set the P2 and P3 posts to unloading position, then install the Loading Gear (T) and (S) so that the hole of Loading Gear (T) is exactly in line with the hole of Loading Gear (S).
2. Install the Sector Gear so that the hole of Sector Gear is exactly in line with the projection mark of Loading Gear (T). Then insert the retaining rings.
3. Install the Tension Roller Unit and SS Brake Unit, then tighten the screws.

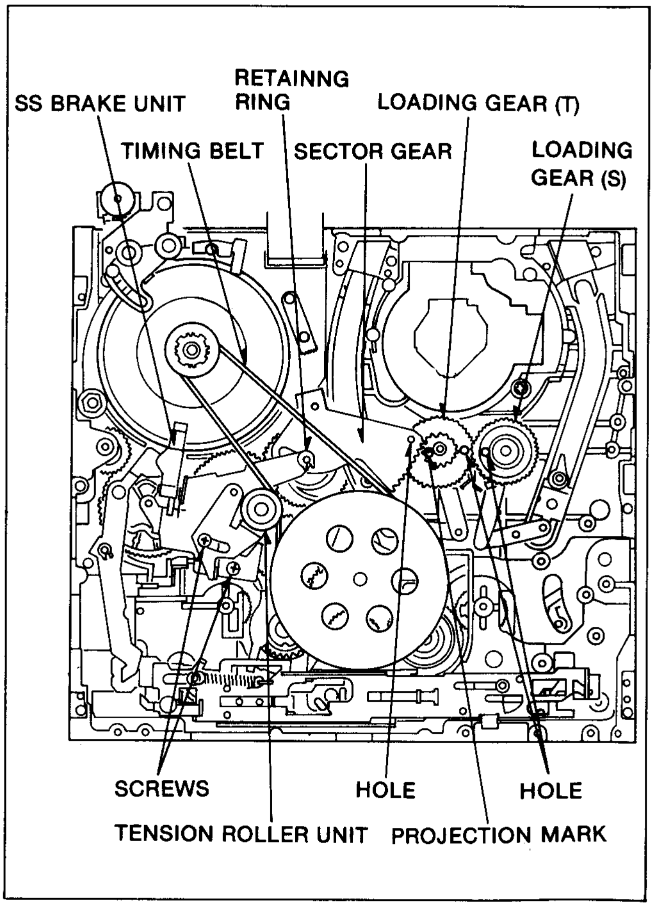

SS BRAKE UNIT
RETAINNG RING
LOADING GEAR (T)
TIMING BELT
SECTOR GEAR
LOADING GEAR (S)
SCREWS
HOLE
HOLE
TENSION ROLLER UNIT
PROJECTION MARK

Fig. A11

2-3-7. ASSEMBLY PROCEDURES OF REV ARM UNIT, REV CLUTCH UNIT, TENSION RELEASE LEVER AND TENSION RELEASE CLUTCH UNIT

1. Install the Rev arm unit and Rev clutch unit.
2. Hitch the Rev motor timing belt to Rev clutch unit.
3. Install the Tension Release Lever unit and Tension Release clutch unit.

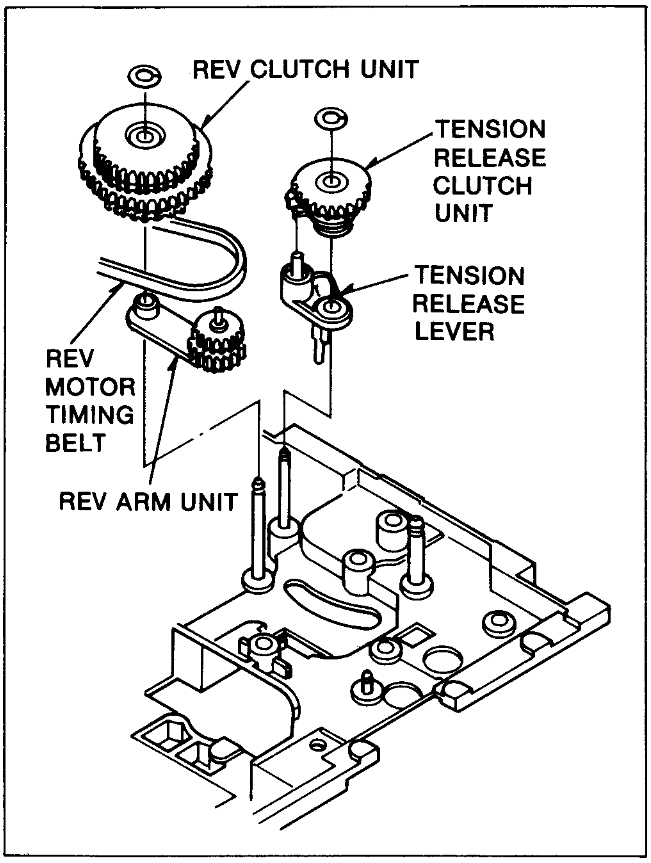

REV CLUTCH UNIT
TENSION RELEASE CLUTCH UNIT
TENSION RELEASE LEVER
REV MOTOR TIMING BELT
REV ARM UNIT

Fig. A12

2-3-8. ASSEMBLY PROCEDURES OF SUB LEVER CAM, SUB CAM FOLLOWER AND REV CONTROL LEVER

1. Install the SUB LEVER CAM RUBBER STOPPER, SUB CAM FOLLOWER and washer as shown below.

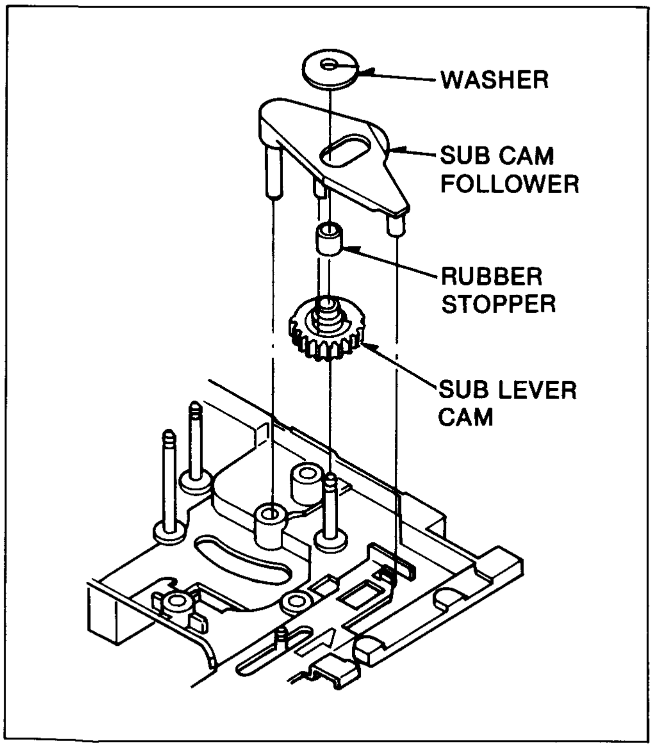

WASHER
SUB CAM FOLLOWER
RUBBER STOPPER
SUB LEVER CAM

Fig. A13

2. Install the Review Control Lever as shown below.

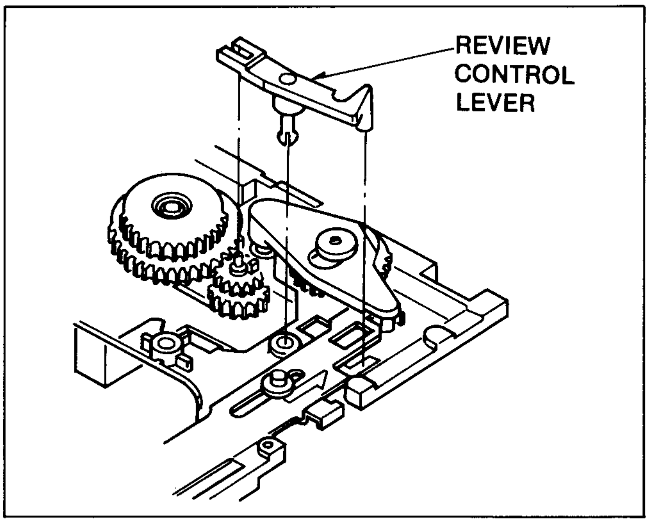

REVIEW CONTROL LEVER

Fig. A14

2-3-9. ASSEMBLY PROCEDURES OF TENSION PULLEY BASE (A) UNIT

1. Install the Tension Pulley Base (A) unit as shown below.
2. Hitch the Rev Motor Timing belt. (Refer to 2-3-2. Tension Adjustment For Rev Motor Timing Belt)

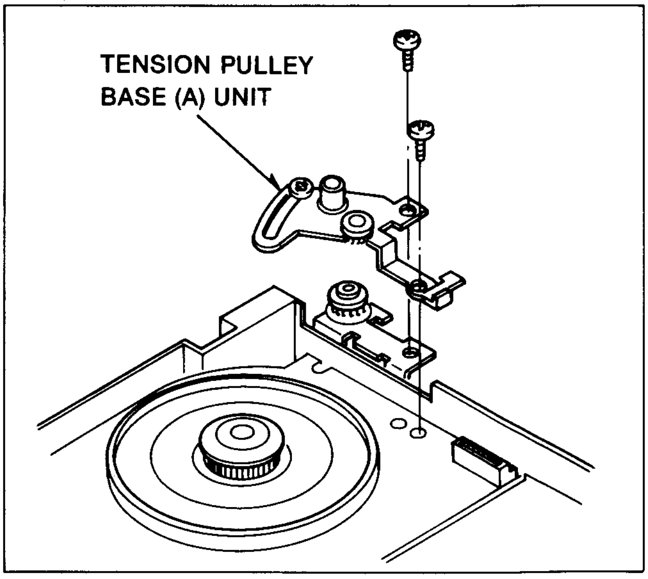

TENSION PULLEY BASE (A) UNIT

Fig. A15

2-3-10. ASSEMBLY PROCEDURES OF CONNECTION GEAR

Note:
Before this assembling, Sub Cam Gear position (and positions of bottom side gears) must be in correct positions as described before.
Install the connection gear so that the small hole of connection gear is exactly in line with the small hole of Sub Cam Gear as shown in Fig. A16.

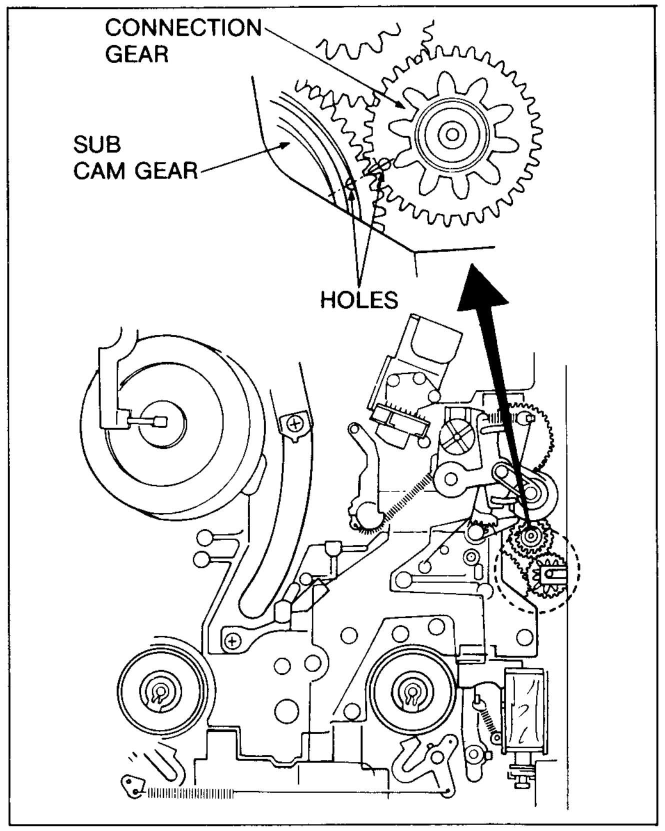

CONNECTION GEAR
SUB CAM GEAR
HOLES

Fig. A16

2-3-11. ASSEMBLY PROCEDURES OF MODE SELECT SWITCH AND P5 PULL OUT SECTOR GEAR

1. Install the Mode Select Switch and tighten a screw, then solder the 5 soldering portions.
2. Install the P5 Pull Out Sector Gear so that the hole of P5 Pull Out Sector Gear is exactly in line with the tip of edge at P5 gear as shown in Fig. A17.

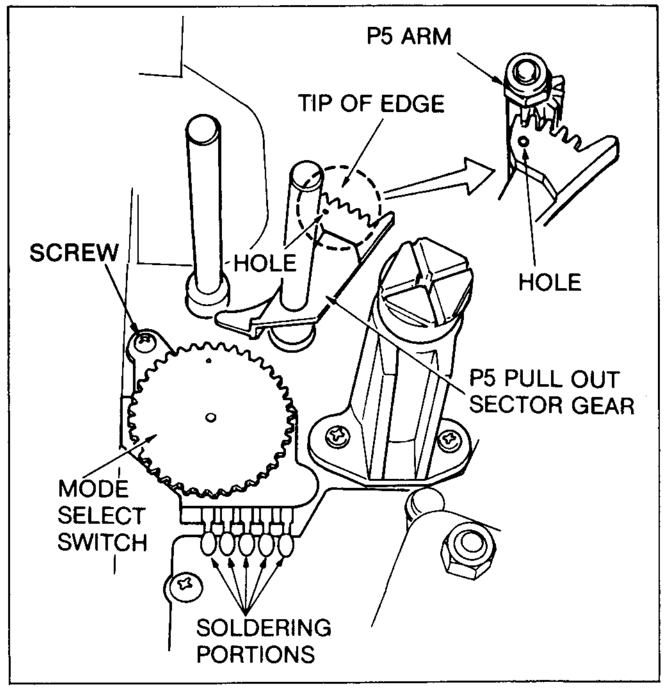

P5 ARM
TIP OF EDGE
SCREW
HOLE
HOLE
P5 PULL OUT SECTOR GEAR
MODE SELECT SWITCH
SOLDERING PORTIONS

Fig. A17

2-3-12. ASSEMBLY PROCEDURES OF PINCH CAM AND PRESSURE ROLLER UNIT

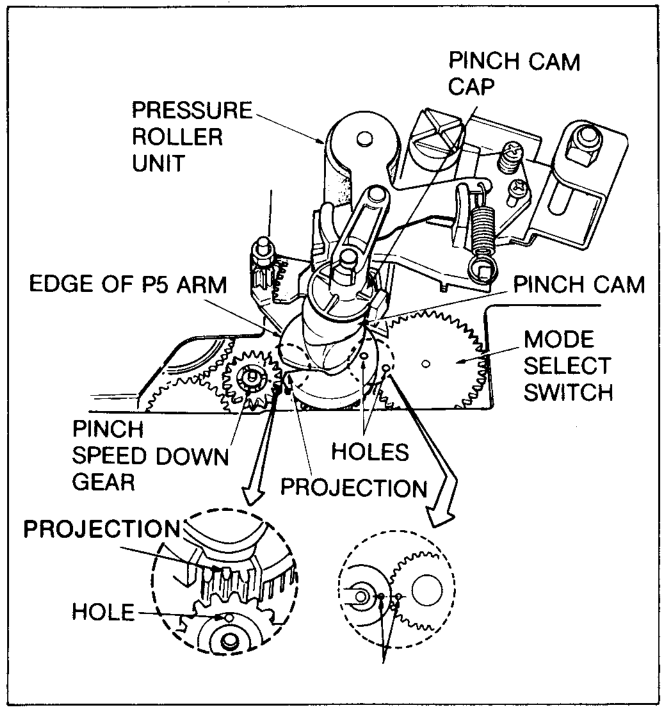

PINCH CAM CAP
PRESSURE ROLLER UNIT
EDGE OF P5 ARM
PINCH CAM
MODE SELECT SWITCH
PINCH SPEED DOWN GEAR
HOLES
PROJECTION
PROJECTION
HOLE

Fig. A18

1. Install the Pinch Cam so that the edge of P5 Arm comes into the Rift of Pinch Cam and Projection of Pinch Cam is exactly in line with the hole of Pinch Speed Down Gear, at this time, the hole of Mode Select Switch is exactly in line with the hole of Pinch Cam as shown in Fig. A18.
2. Install the Pressure Roller Unit, then install the Pinch Cam Cap.

2-3-13. REINSTALLATION OF CASSETTE COMPARTMENT

When reinstall the cassette compartment, the position adjustment (alignment) of mechanism is necessary for correct working as follows.

A. Reinstallation of Cassette Compartment from Stop (FF/REW) Position

1. Set the mechanism condition to Stop (FF/REW) position by means of turning capstan motor (refer to item Technical Information in this manual).
2. Remove the 2 screws (A) as shown in Fig. A19.
3. Take the top plate out.

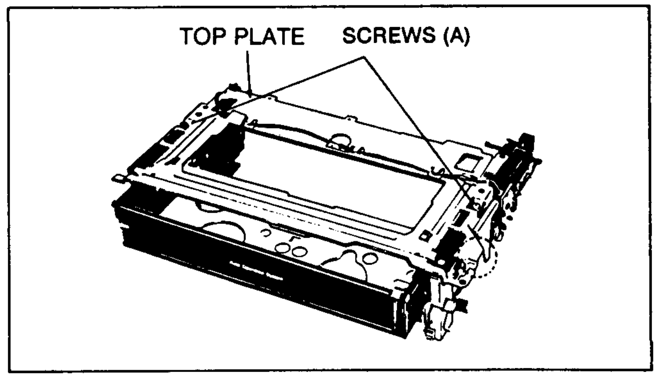

TOP PLATE
SCREWS (A)

Fig. A19

4. Take the cassette Holder unit out as shown in Fig. A20.

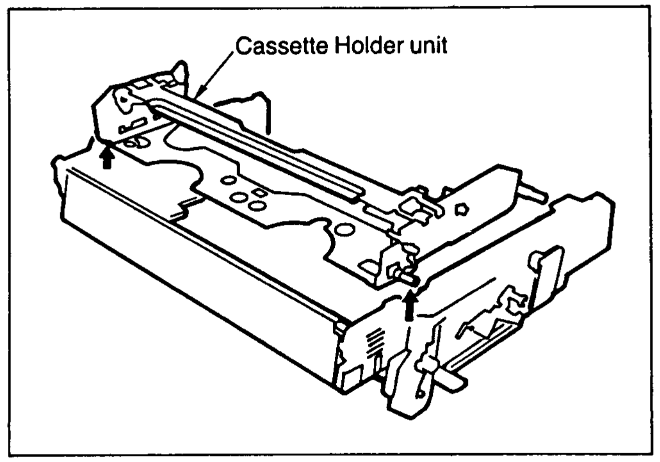

Cassette Holder unit

Fig. A20 Removal of cassette holder unit.

5. Press the sub wiper arm (R) to direction indicated by arrow so that the sub wiper arm (R) comes to cassette down position completely as shown in Fig. A21. and keep it.

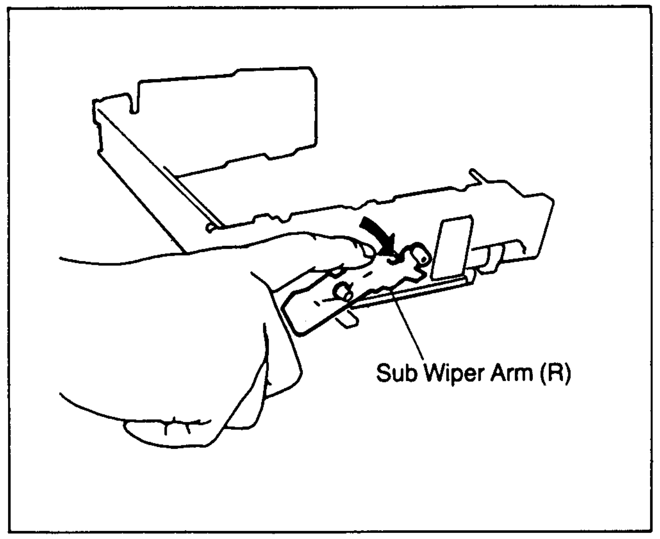

Sub Wiper Arm (R)

Fig. A21

6. Reinstall the cassette compartment (Without Cassette Holder) to chassis so that the first tip of Rack Gear A (1) comes to Marking slot of connection gear as shown in Fig. A22.

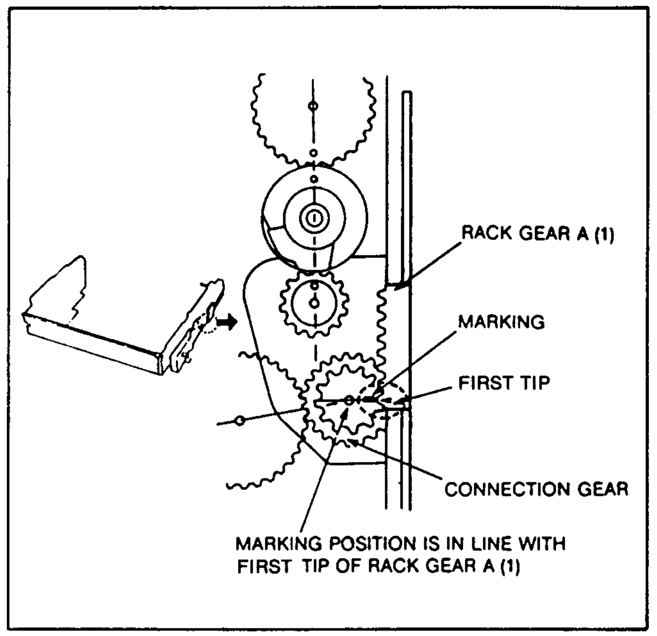

RACK GEAR A (1)
MARKING
FIRST TIP
CONNECTION GEAR
MARKING POSITION IS IN LINE WITH FIRST TIP OF RACK GEAR A (1)

Fig. A22

7. Tighten the 4 screws (D) as shown in Fig. A23.

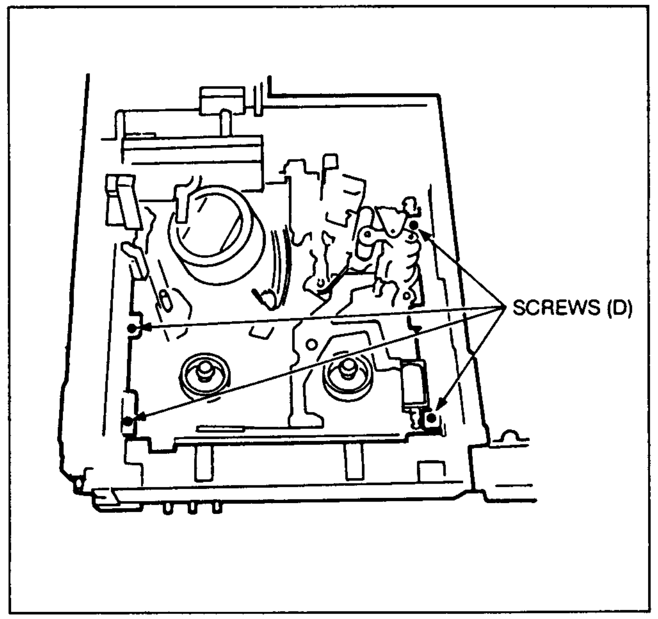


Fig. A23

8. Repeat Pressing the change lever and turn the capstan motor counter clockwise until mechanism is placed to Eject position.
9. Reinstall the cassette holder unit as just the reverse way of item 4, Fig. A20.
10. Reinstall the top plate as just the reverse way of item 3, Fig. A19.

VFJ8125H3
(Refer to Tech
VRD-TC-401-

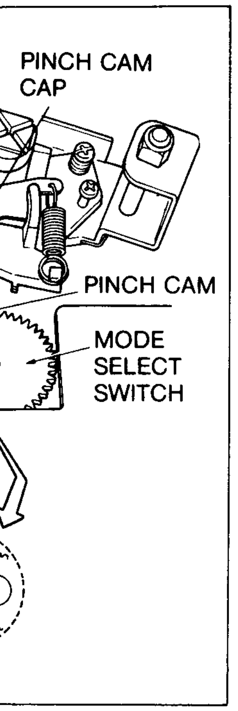
VFK0132

VFK0343

VFK0329

VFK0341 U

OF PINCH CAM
UNIT


PINCH CAM
CAP
PINCH CAM
MODE
SELECT
SWITCH

it the edge of P5
f Pinch Cam and
s exactly in line
d Down Gear, at
e Select Switch is
of Pinch Cam as

Jnit, then install

SSETTE

compartment, the
of mechanism is
llows.

ompartment from

o Stop (FF/REW)
g capstan motor
ormation in this

own in Fig. A19.

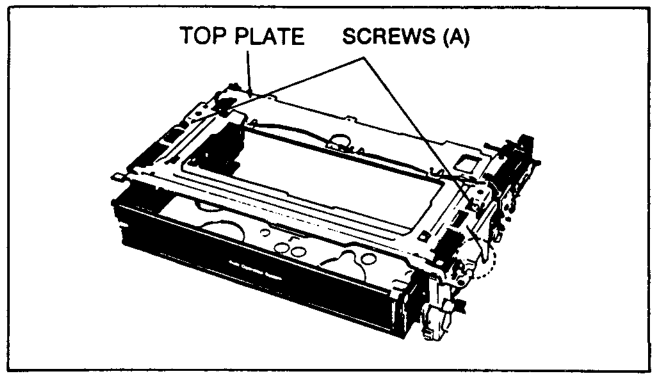

TOP PLATE
SCREWS (A)

Fig. A19

4. Take the cassette Holder unit out as shown in Fig. A20.

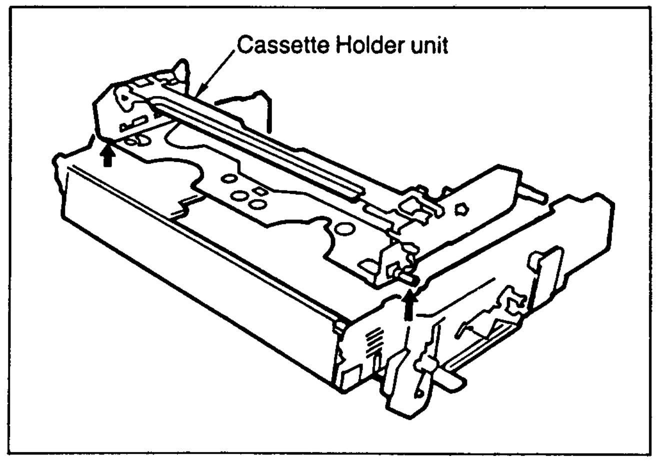

Cassette Holder unit

Fig. A20 Removal of cassette holder unit.

5. Press the sub wiper arm (R) to direction indicated by arrow so that the sub wiper arm (R) comes to cassette down position completely as shown in Fig. A21. and keep it.

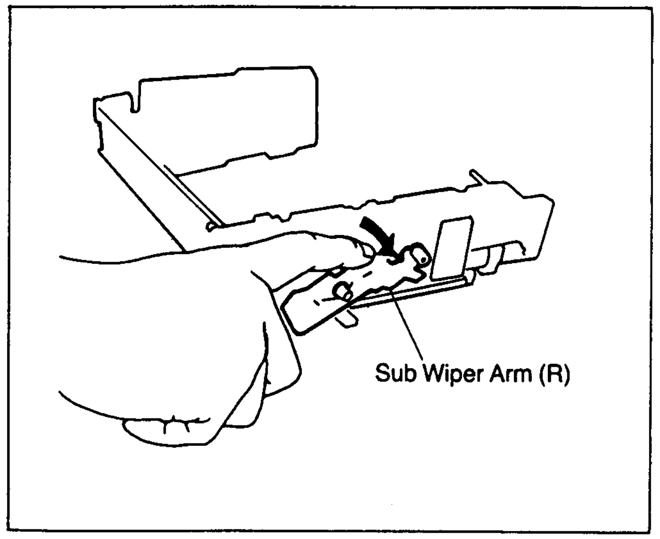

Sub Wiper Arm (R)

Fig. A21

6. Reinstall the cassette compartment (Without Cassette Holder) to chassis so that the first tip of Rack Gear A (1) comes to Marking slot of connection gear as shown in Fig. A22.

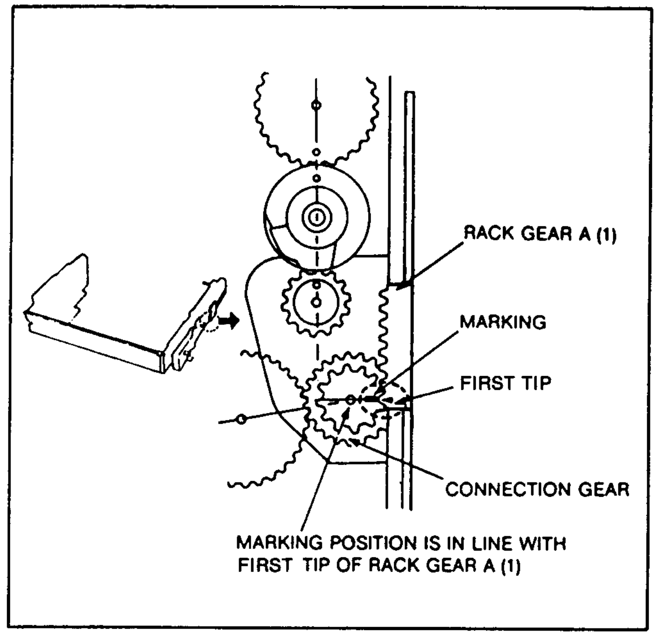

RACK GEAR A (1)
MARKING
FIRST TIP
CONNECTION GEAR
MARKING POSITION IS IN LINE WITH
FIRST TIP OF RACK GEAR A (1)

Fig. A22

7. Tighten the 4 screws (D) as shown in Fig. A23.

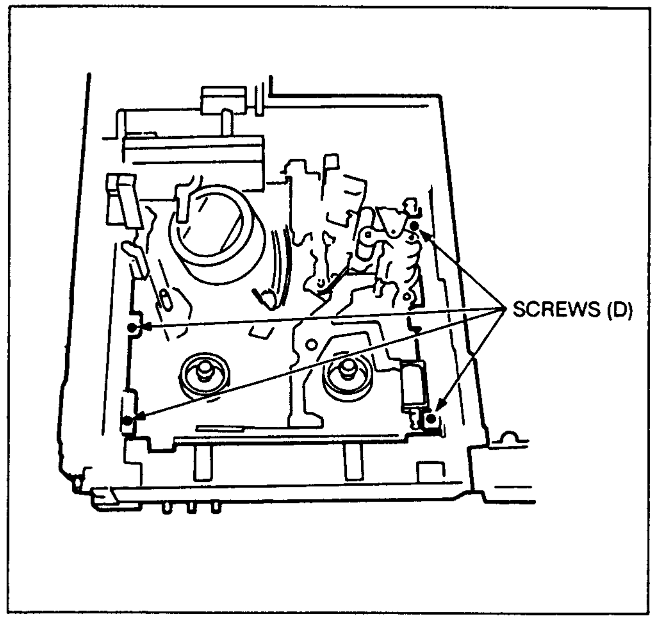
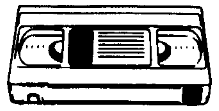
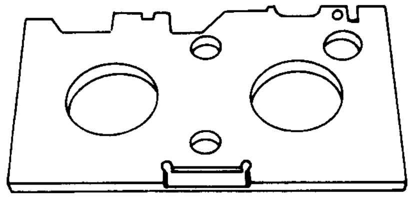
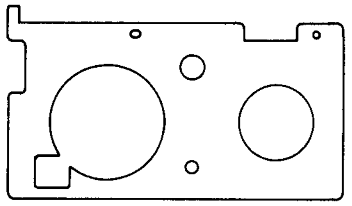
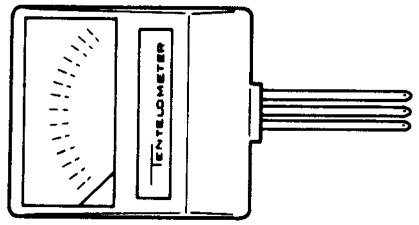
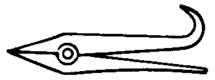
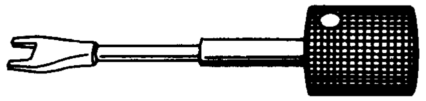
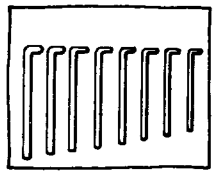
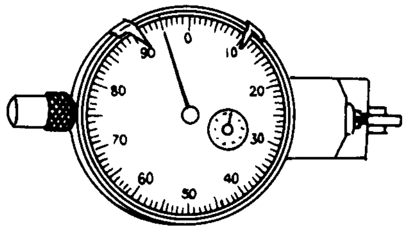
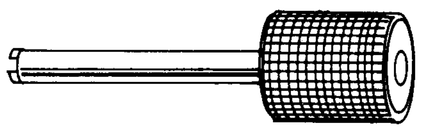
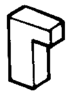
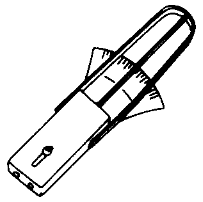
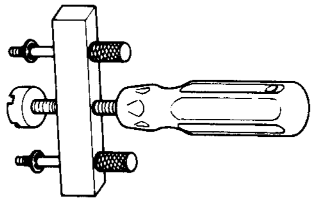
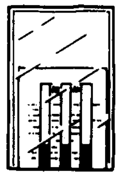
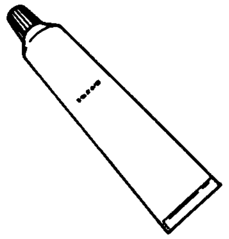


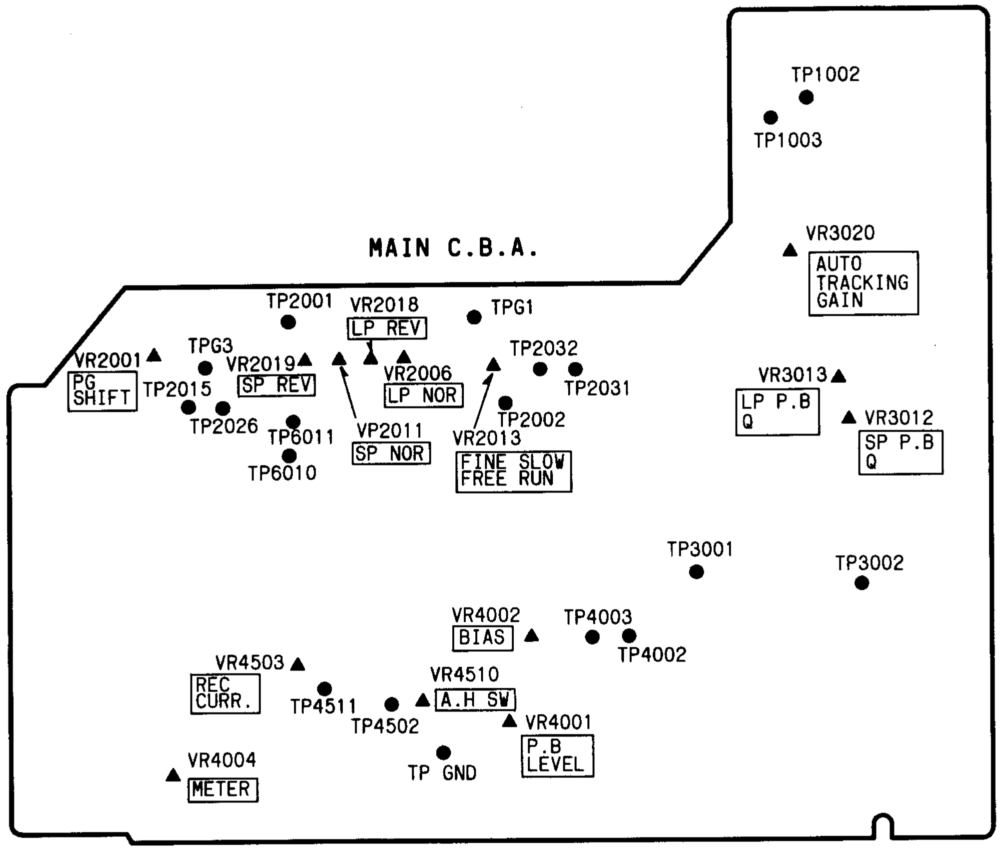
Fig. A23

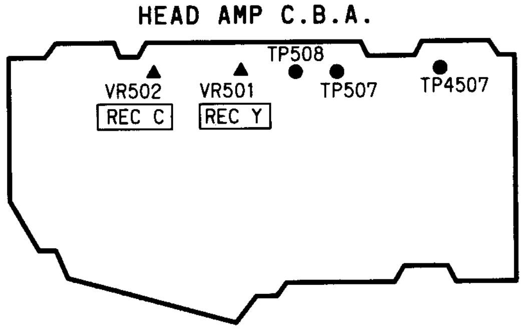
8. Repeat Pressing the change lever and turn the capstan motor counter clockwise until mechanism is placed to Eject position.
9. Reinstall the cassette holder unit as just the reverse way of item 4, Fig. A20.
10. Reinstall the top plate as just the reverse way of item 3, Fig. A19.

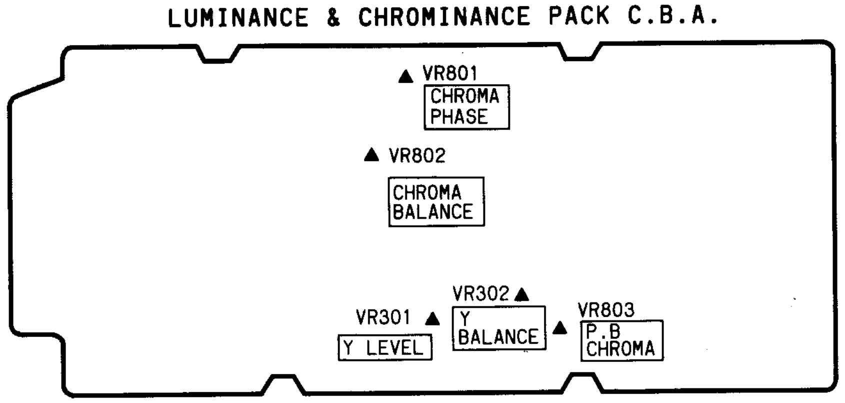
Servicing Fixtures & Tools

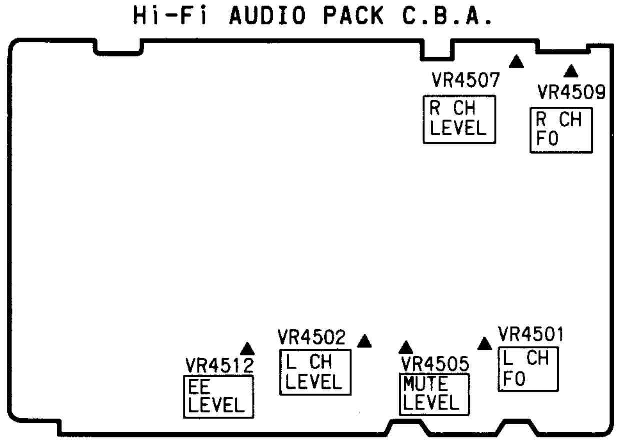
VFJ8125H3F PAL VHS Alignment Tape **(Refer to Technical Information Order No. VRD-TC-401-1)** 	**VFK0191 Post Adjustment Plate** 	**VFK0387 Tension Post Adj. Fixture** 
VFK0132 Back Tension Meter **(Tentelometer, Made in U.S.A.)** 	**VFK0335 Retaining Ring Remover** **(3mm/4mm)** 	**VFK0328 H-Position Adj. Screwdriver** 
VFK0343 Check Light 	**VFK0326 Hex. Wrench Set** **(0.7, 0.9, 1.2, 1.5, 1.6, 2, 2.4, 3mm)** 	**VFK0190 Reel Table Height Jig** 
VFK0329 Post Adjustment Screwdriver 	**VFK0344 Height Adjustment Jig** 	**VFK62 Fan Type Tension Gauge** 
VFK0341 Upper Cylinder Remover Jig 	**VFK27** **Head Cleaning Stick** 	**MOR265 Morlytone Grease** 

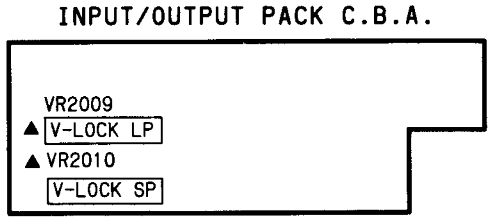
LOCATION OF TEST POINTS & CONTROLS

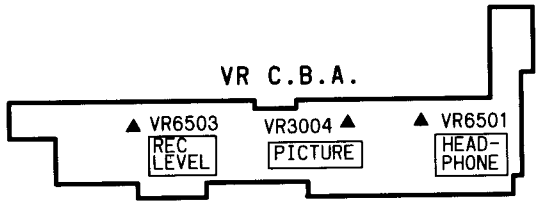

MAIN C.B.A.
TP1002
TP1003
VR3020
AUTO TRACKING GAIN
TP2001
VR2018
LP REV
TPG1
VR2001
PG SHIFT
TPG3
VR2019
SP REV
VR2006
LP NOR
TP2032
TP2031
TP2015
TP2026
TP6011
TP6010
VP2011
SP NOR
VR2013
FINE SLOW FREE RUN
TP2002
VR3013
LP P.B Q
VR3012
SP P.B Q
TP3001
TP3002
VR4002
BIAS
TP4003
TP4002
VR4503
REC CURR.
TP4511
TP4502
VR4510
A.H SW
VR4001
P.B LEVEL
VR4004
METER
TP GND

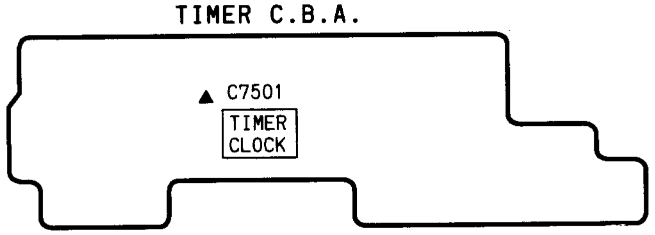

HEAD AMP C.B.A.
TP508
VR502
REC C
VR501
REC Y
TP507
TP4507


LUMINANCE & CHROMINANCE PACK C.B.A.
VR801
CHROMA PHASE
VR802
CHROMA BALANCE
VR302
VR301
Y LEVEL
Y BALANCE
VR803
P.B CHROMA

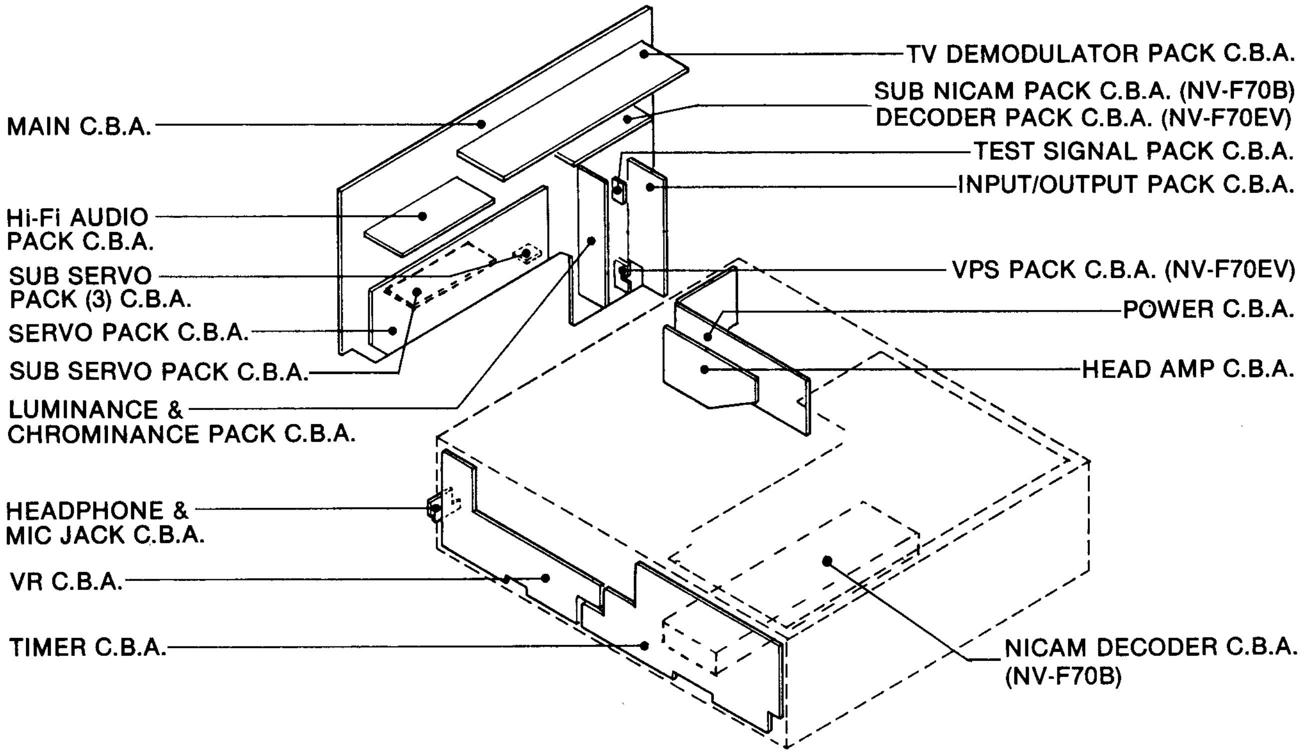

Hi-Fi AUDIO PACK C.B.A.
VR4507
R CH LEVEL
VR4509
R CH FO
VR4512
EE LEVEL
VR4502
L CH LEVEL
VR4505
MUTE LEVEL
VR4501
L CH FO


INPUT/OUTPUT PACK C.B.A.
VR2009
V-LOCK LP
VR2010
V-LOCK SP


VR C.B.A.
VR6503
REC LEVEL
VR3004
PICTURE
VR6501
HEAD-PHONE


TIMER C.B.A.
C7501
TIMER CLOCK

CIRCUIT BOARD LAYOUT


TV DEMODULATOR PACK C.B.A.
SUB NICAM PACK C.B.A. (NV-F70B)
DECODER PACK C.B.A. (NV-F70EV)
TEST SIGNAL PACK C.B.A.
INPUT/OUTPUT PACK C.B.A.
VPS PACK C.B.A. (NV-F70EV)
POWER C.B.A.
HEAD AMP C.B.A.
NICAM DECODER C.B.A. (NV-F70B)
MAIN C.B.A.
Hi-Fi AUDIO PACK C.B.A.
SUB SERVO PACK (3) C.B.A.
SERVO PACK C.B.A.
SUB SERVO PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
HEADPHONE & MIC JACK C.B.A.
VR C.B.A.
TIMER C.B.A.

2-4. ELECT
PROCE

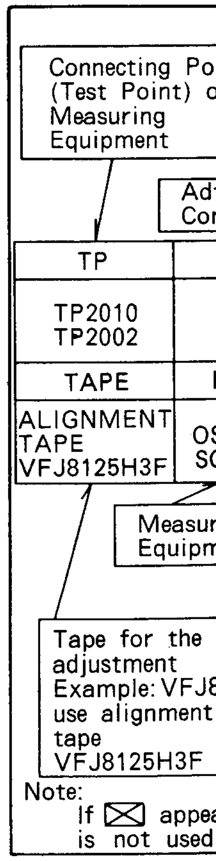
This section
adjustment proce
electronic circui
Recorders.

2-4-1. TEST EQUI

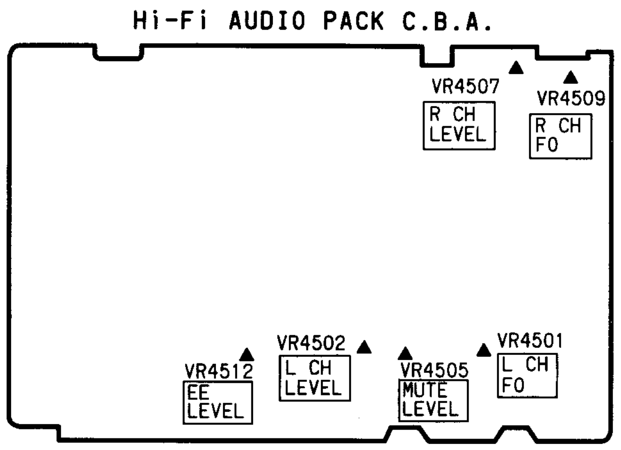
To perform the
following equipme

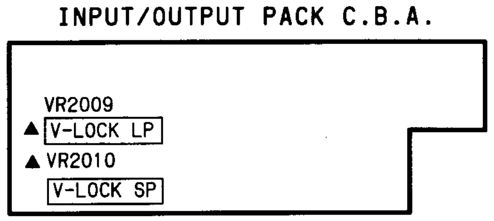
1. VTVM (Vacu
(Digital Volt
Voltage Rang
2. Dual−Trace C
Voltage rang
Frequency Ra
Probes:
3. Frequency co
Frequency Ra
4. Signal Genera
Frequency Ra
5. Video Sweep
Frequency Ra
6. Colour Monit
7. Plaastic Tip
8. VHS Alignme
9. Pattern Gene

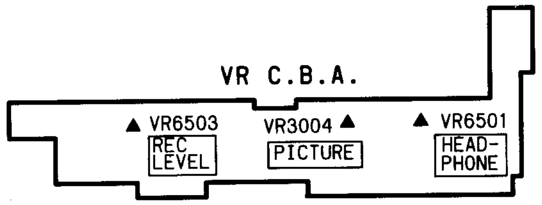
2-4-2. HOW TO R
PROCEDU

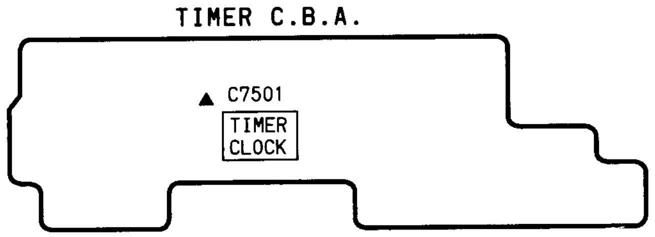

Connecting Po
(Test Point) o
Measuring
Equipment
Ad
Co
TP
TP2010
TP2002
TAPE
ALIGNMENT TAPE VFJ8125H3F
OS
SC
Measur
Equipm
Tape for the
adjustment
Example: VFJ8
use alignment
tape
VFJ8125H3F

Note:
If ☒ appea
is not used

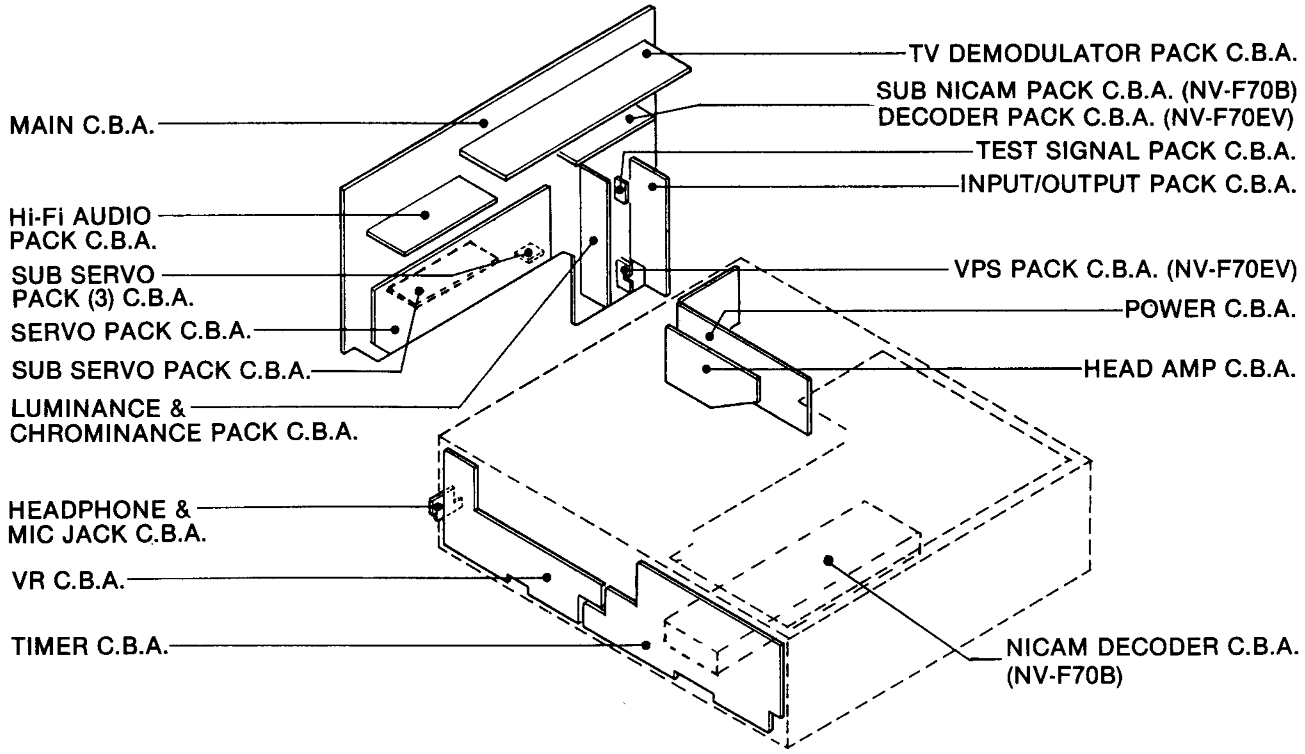

Hi-Fi AUDIO PACK C.B.A.
VR4507
R CH LEVEL
VR4509
R CH FO
VR4512
EE LEVEL
VR4502
L CH LEVEL
VR4505
MUTE LEVEL
VR4501
L CH FO


INPUT/OUTPUT PACK C.B.A.
VR2009
V-LOCK LP
VR2010
V-LOCK SP


VR C.B.A.
VR6503
REC LEVEL
VR3004
PICTURE
VR6501
HEAD-PHONE


TIMER C.B.A.
C7501
TIMER CLOCK

CIRCUIT BOARD LAYOUT


TV DEMODULATOR PACK C.B.A.
SUB NICAM PACK C.B.A. (NV-F70B)
DECODER PACK C.B.A. (NV-F70EV)
TEST SIGNAL PACK C.B.A.
INPUT/OUTPUT PACK C.B.A.
VPS PACK C.B.A. (NV-F70EV)
POWER C.B.A.
HEAD AMP C.B.A.
NICAM DECODER C.B.A. (NV-F70B)
MAIN C.B.A.
Hi-Fi AUDIO PACK C.B.A.
SUB SERVO PACK (3) C.B.A.
SERVO PACK C.B.A.
SUB SERVO PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
HEADPHONE & MIC JACK C.B.A.
VR C.B.A.
TIMER C.B.A.

2-4. ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS Video Cassette Recorders.

2-4-1. TEST EQUIPMENTS

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) and DVM (Digital Volt Meter)
   Voltage Range: 0.001~50V
2. Dual-Trace Oscilloscope
   Voltage range: 0.005~50V/div.
   Frequency Range: DC~30MHz
   Probes: 10:1
3. Frequency counter
   Frequency Range: 0~10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0~500KHz
5. Video Sweep Generator
   Frequency Range: 0~10MHz
6. Colour Monitor TV
7. Plaastic Tip Driver
8. VHS Alignment Tape (VFJ8125H3F)
9. Pattern Generator

2-4-2. HOW TO READ THE ADJUSTMENT PROCEDURES

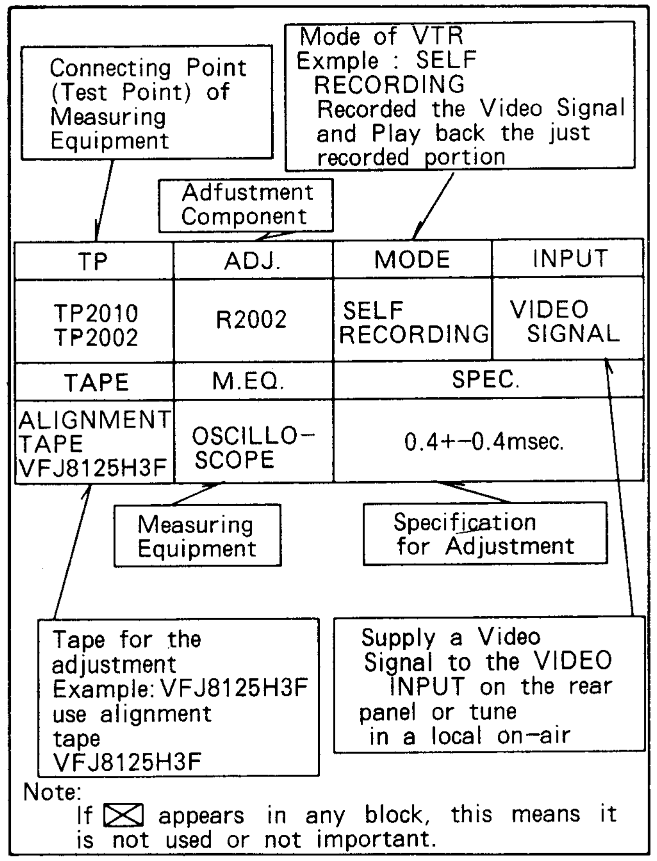

Connecting Point (Test Point) of Measuring Equipment
Mode of VTR
Exmple : SELF RECORDING
Recorded the Video Signal and Play back the just recorded portion
Adfustment Component
TP
ADJ.
MODE
INPUT
TP2010
TP2002
R2002
SELF RECORDING
VIDEO SIGNAL
TAPE
M.EQ.
SPEC.
ALIGNMENT TAPE VFJ8125H3F
OSCILLO-SCOPE
0.4+-0.4msec.
Measuring Equipment
Specification for Adjustment
Tape for the adjustment
Example: VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air
Note:
If ☒ appears in any block, this means it is not used or not important.

Fig. E1

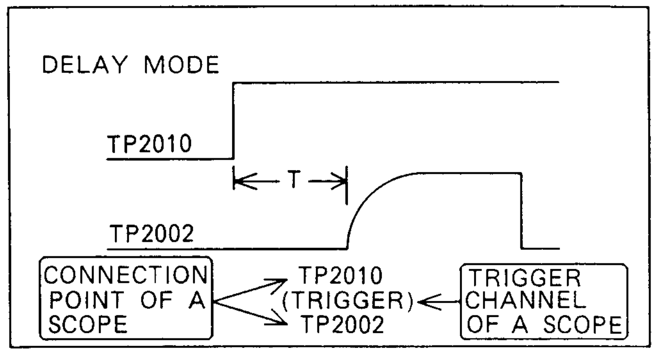

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010
(TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Fig. E2

SERVO Section

2-4-3. VIDEO AUTO TRACKING GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC3001-6	VR3020	STOP	4MHz 200mVp-p (TO TP3001)
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GEN D.V.M.	3.0+-0.1(V)	

1. Set the output of Sinewave Signal Generator to 4MHz, 200mVp-p and supply it to TP3001.
2. Connect the D.V.M. (Digital Volt Meter) to IC3001-6.
3. Adjust VR3020 so that readirg of D.V.M. is 3.0+-0.1 (V).

2-4-4. SLOW FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2015	VR2013	STILL	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	FREQUENCY COUNTER	453+-15 (Hz)	

1. Record the Colour Bar in SP Mode and Playback the just recorded portion. Then place the unit in STILL Mode.
2. Make a test mode as shown in Fig. Test mode. Connect a cut Jumper wire.
3. Connect the jumper wire between TP2026 and GND.
4. Adjust VR2013 so that reading of the Frequency Counter is 453+-15 (Hz).

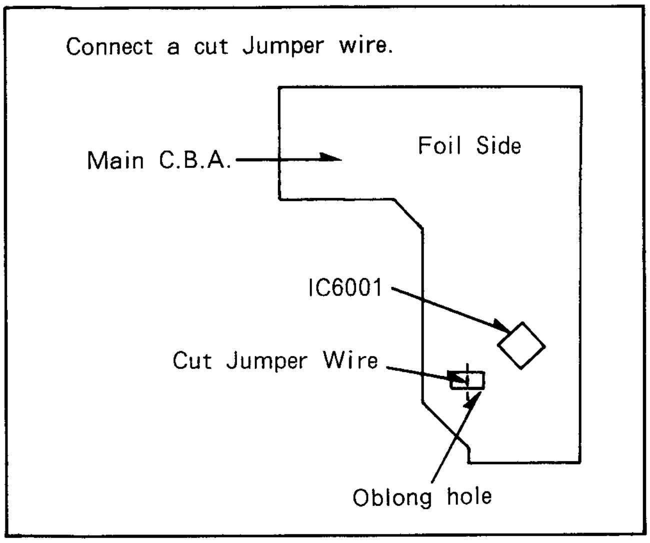

Connect a cut Jumper wire.
Main C.B.A.
Foil Side
IC6001
Cut Jumper Wire
Oblong hole

Fig. Test mode

2-4-5. PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP3002	VR2001	PLAY BACK	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	7.0+-0.5 (H)	

1. Connect the Oscilloscope to TP2001 and TP3002.
2. Playback the VHS Alignment Tape (VFJ8125H3F).
3. Adjust VR2001 so that the phase difference becomes 7.0+-0.5 (H) as shown in Fig. E3.

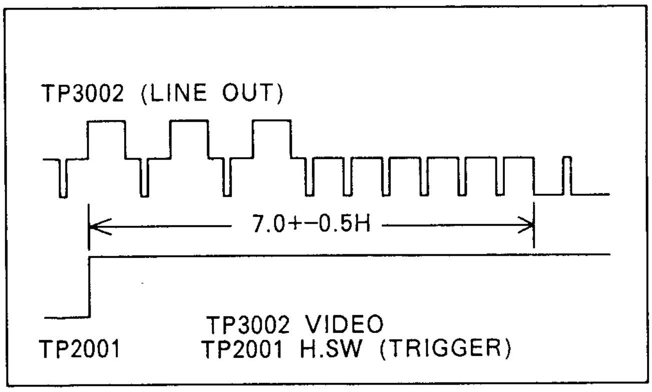

TP3002 (LINE OUT)
7.0+-0.5H
TP2001
TP3002 VIDEO
TP2001 H.SW (TRIGGER)

Fig. E3

2-4-6. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR SCREEN	VR2010 (SP) VR2009 (LP)	STILL	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	MONITOR	NO V-DANCING	

1. Record the Video Signal in SP Mode and playback the just recorded portion. Then place the unit in STILL Mode.
2. Adjust VR2010 so that the V-Dancing does not appear on the Monitor Screen.
3. Record the Video Signal in LP Mode and playback the just recorded portion. Then place the unit in STILL Mode.
4. Adjust VR2009 so that the V-Dancing does not appear on the Monitor Screen.

2-4-7. SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2002 TP2026	VR2011 (SP) VR2006 (LP)	SLOW	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	17.5+-2 (msec) (SP) 16+-2 (msec) (LP)	

Connect the Oscilloscope to TP2002 and TP2026.

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the Unit in 1/5 Speed Slow by Infra-red remote controller. (Press SEARCH button and then press ⊞ button 5 times)
2. Adjust VR2011 so that the phase difference becomes 17.5+-2 (msec) as shown in Fig. E4.
3. Record the Colour Bar in LP Mode and playback the just recorded portion. Then place the Unit in 1/5 Speed Slow by Infra-red remote controller.
4. Adjust VR2006 so that the phase difference becomes 16+-2 (msec) as shown in Fig. E4.

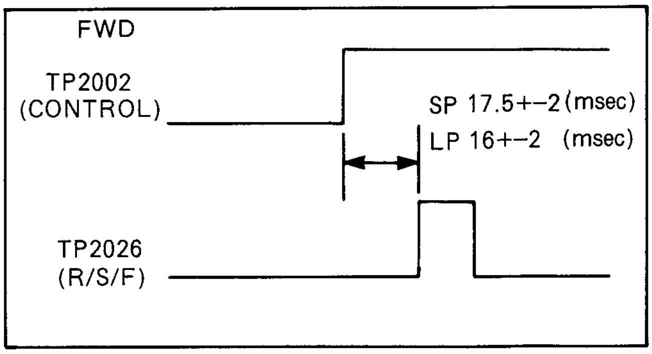

FWD
TP2002
(CONTROL)
SP 17.5+-2(msec)
LP 16+-2 (msec)
TP2026
(R/S/F)

Fig. E4

2-4-8. REVERSE SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2002 TP2026	VR2019 (SP) VR2018 (LP)	REVERSE SLOW	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	14+-2 (msec) (SP) 10+-2 (msec) (LP)	

Connect the Oscilloscope to TP2002 and TP2026

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the Unit in 1/5 Reverse Slow Mode by Infra-red remote controller. (Press SEARCH button and then press ⊟ button 5 times)
2. Adjust VR2019 so that the phase difference becomes 14+-2 (msec) as shown in Fig. E5.
3. Record the Colour Bar in LP Mode and playback the just recorded portion. Then place the Unit in 1/5 Reverse Slow Mode by Infra-red remote controller.
4. Adjust VR2018 so that the phase difference becomes 10+-2 (msec) as shown in Fig. E5.

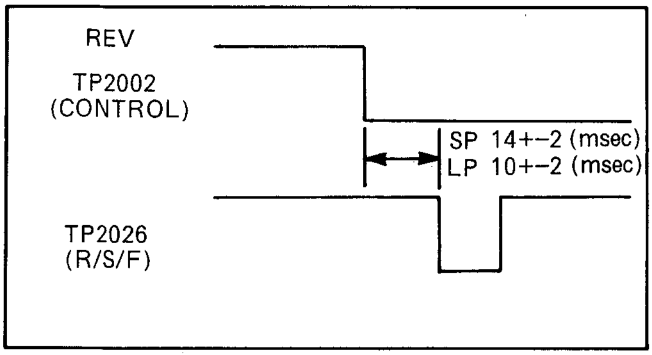


Fig. E5

LUMINANCE, CHROMINANCE & HEAD AMP Section

2-4-9. Y-NR BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC302-21	VR302	RECORDING (LP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVE-FORM IS MINIMIZED	

1. Record the Colour Bar in LP Mode.
2. Connect the Oscilloscope to IC302-21.
3. Adjust VR302 so that waveform becomes minimum.

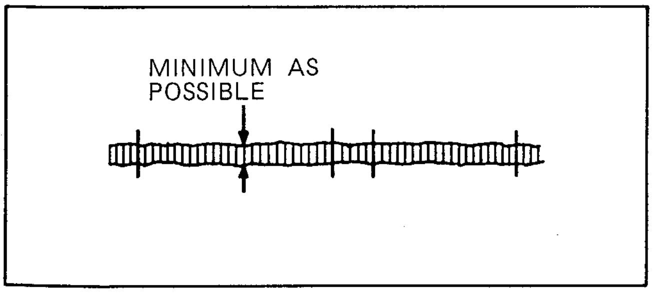


Fig. E6

2-4-10. Y-NR GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR301	SELF RECORDING AND PLAYBACK (LP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	1.0+-0.05 (Vp-p) (75ohm Terminated)	

1. Record the Colour bar in LP Mode and Playback the just recorded portion.
2. Connect the oscilloscope to TP3002.
3. Adjust VR301 so that the Video Level becomes 1.0+-0.1 (Vp-p).

Achieve this adjustment, Video OUT terminal must be terminated with 75ohm.

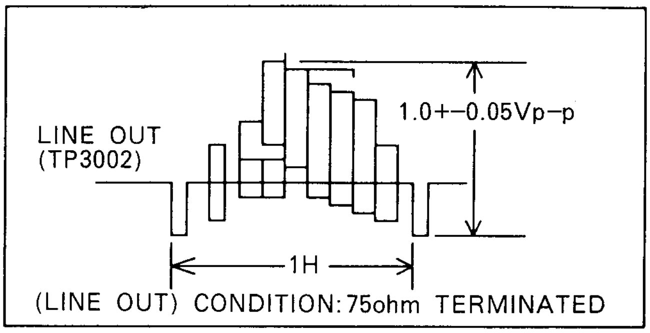


Fig. E7

2-4-11. RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR501 (Y) VR502 (C)	RECORDING (SP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	32+-2 (mVp-p) (C) 105+-5 (mVp-p) (Y)	

1. Record the Colour Bar in SP Mode.
2. Connect the Oscilloscope to TP507 (HOT) and TP508 (GND).
3. Turn VR501 so that luminance recording current signal becomes closed. (means minimum waveform)
4. Adjust VR502 so that the Chrominance recording current becomes 32+-2 (mVp-p) as shown in Fig. E8.
5. Next, adjust VR501 so that Luminance Recording current becomes 105+-5 (mVp-p) as shown in Fig. E9.

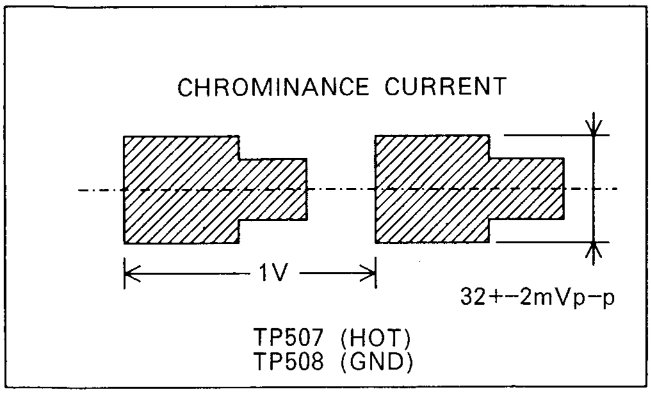

CHROMINANCE CURRENT
1V
32+-2mVp-p
TP507 (HOT)
TP508 (GND)

Fig. E8

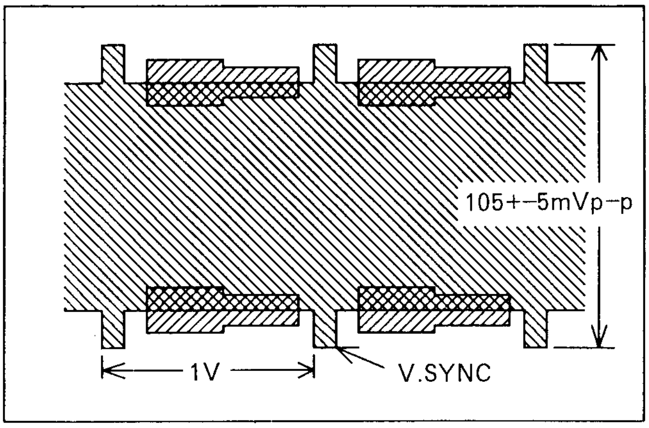

105+-5mVp-p
1V
V.SYNC

Fig. E9

2-4-12. CHROMA RECURSIVE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC302-8	VR801 VR802	SELF RECORDING AND PLAYPACK	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	AMPLITUDE IS MINIMIZED	

1. Record the Colour Bar in SP Mode and playback the just recorded portion.
2. Connect the Oscilloscope to IC302-8.
3. Adjust VR801 and VR802 alternately so that the Chrominance Waveform Amplitude becomes minimum.

Befor this adjustment "Y-NR BALANCE ADJUSTMENT" and "RECORDING CURRENT ADJUSTMENT"

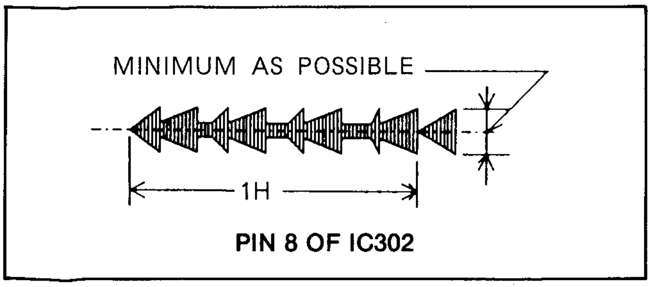

MINIMUM AS POSSIBLE
1H
PIN 8 OF IC302

Fig. E10

2-4-13. CHROMINANCE PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR803	SELF RECORDING AND PLAYBACK	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	0.55+-0.05 (Vp-p) (75ohm terminated)	

1. Record the Colour Bar in SP Mode and playback the just recorded portion.
2. Connect the Oscilloscope to TP3002.
3. Adjust VR803 so that the CYAN Level becomes 0.55+-0.05 (Vp-p) as shown in Fig. E11.

Achieve this adjustment, the unit must be terminated with 75ohm.

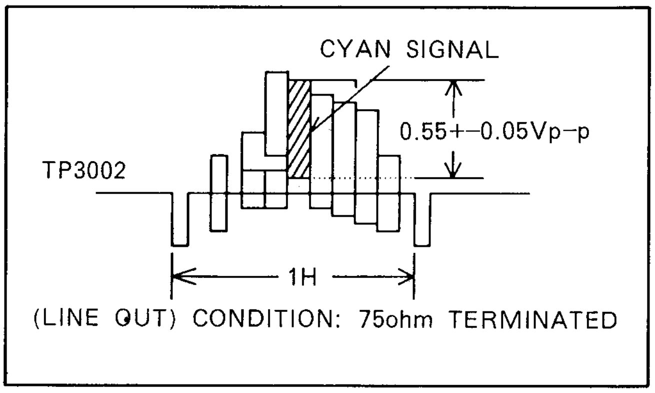
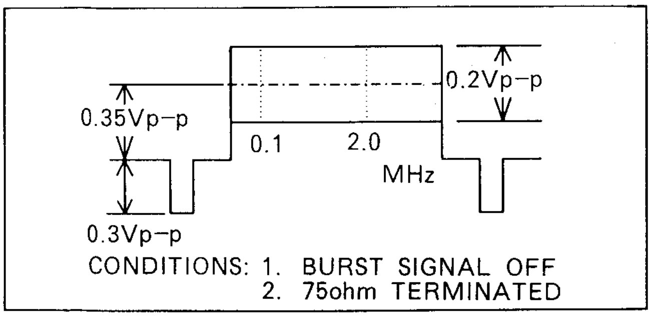

CYAN SIGNAL
0.55+-0.05Vp-p
TP3002
1H
(LINE OUT) CONDITION: 75ohm TERMINATED

Fig. E11

2-4-14. VIDEO FREQUENCY RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR3012 (SP) VR3013 (LP)	SELF RECORDING AND PLAYBACK	VIDEO SWEEP SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE / VIDEO SWEEP GENERATOR	B/A=0+-1 (dB) (90~110(%))	

1. Set the Video Sweep Generator output as shown in Fig. E12.



CONDITIONS: 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. E12

2. Record the Video Sweep Signal in SP Mode and playback just recorded portion.
3. Set the Tracking control to Fix position.
4. Adjust VR3012 so that the Frequency Response becomes B/A=0+−1dB as shown in Fig.
5. Record the Video Sweep Signal in LP Mode and playback just recorded portion.
6. Set the Tracking control to Fix position.
7. Adjust VR3013 so that the Frequency Response becomes B/A=0+−1dB as shown in Fig. E13.

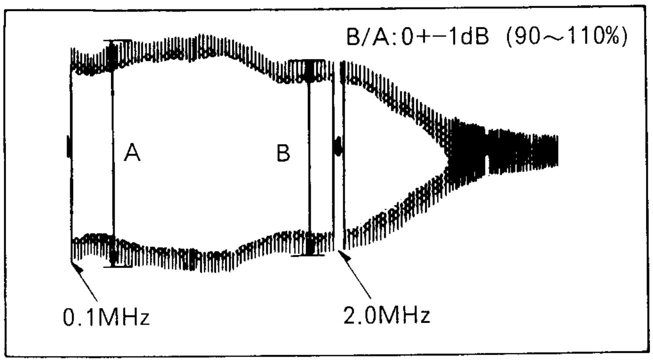


Fig. E13

NORMAL AUDIO & Hi-Fi AUDIO Section

2-4-15. AUDIO DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4502 (L) VR4507 (R)	SELF RECORDING AND PLAYBACK	1KHz −10dBV (316mVrms)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M./ SINEWAVE SIGNAL GEN	PLAYBACK LEVEL IS SAME AS E−E LEVEL	

1. Set the Output of Signal Generator to 1KHz, −10dBV (316mVrms).
2. Connect the Signal Generator to both Audio In terminal.
3. Adjust Rec Level Control VR so that both Audio Output level becomes 400mVrms (−8dBV).
4. Record the Audio Signal and playback the just recorded portion.
5. Adjust VR4502 so that the Audio (L) Output Level becomes 400mVrms (−8dBV).
6. Adjust VR4507 so that the Audio (R) Output Level becomes 400mVrms (−8dBV).

2-4-16. AUDIO CARRIER FREQUENCY (fo) ADJUSTMENT

TP	ADJ.	MODE	INPUT
(L) BETWEEN C4516 AND R4513 (R) BETWEEN C4566 AND R4563	(L) VR4501 (R) VR4509	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	(L) 1.4 (MHz)+−3 (KHz) (R) 1.8 (MHz)+−3 (KHz)	

1. Connect the Frequency Counter to between C4516 and R4513.
2. Adjust VR4501 so that reading of Frequency counter is 1.4 (MHz)+−3 (KHz).
3. Connect the Frequency Counter to between C4566 and R4563.
4. Adjust VR4509 so that reading of Frequency counter is 1.8 (MHz)+−3 (KHz).

2-4-17. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002 (+) TP4003 (−)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.4+−0.1 (mVrms)	

1. Connect the V.T.V.M. to TP4002 (+) and TP4003 (−). (Do not use long cable for Connection)
2. Make a short circuit at terminal of the Audio input.
3. Place the Unit in Recording Mode.
4. Adjust VR4002 so that reading of V.T.V.M. becomes 2.4+−0.1 (mVrms).

2-4-18. Hi-Fi AUDIO HEAD SWITCHING SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4511 TP2001	VR4510	PLAYBACK	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	$T=\frac{T2+T1}{2}$ (msec)	

1. Playback the VHS Alignment Tape (VFJ8125H3F).
2. Connect the Oscilloscope to TP4511 and TP2001.
3. Adjust VR4510 while listening to the stereo playback sound.
   - (1) Confirm the "T2" time when the abnormal sound just occurs during turning clockwise on VR4510.
   - (2) Confirm the "T1" time when the abnormal sound just occurs during turning counter clockwise on VR4510.
   - (3)- Adjust VR4510 so that the falling edge "T" of Audio H.SW. pulse becomes the center portion of the both "T2" and "T1".

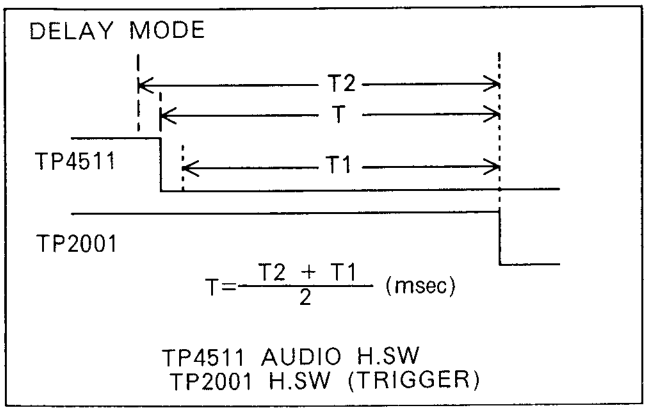

DELAY MODE
T2
T
T1
TP4511
TP2001
T=(T2 + T1)/2 (msec)
TP4511 AUDIO H.SW
TP2001 H.SW (TRIGGER)

Fig. E14

2-4-19. LEVEL METER SENSITIVITY ADJUSTMENT

TP	ADJ.	MODE	INPUT
LEVEL METER	VR4004	STOP	1(KHz) −10(dBV) (316mVrms)
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GEN./ V.T.V.M.	0dB INDICATOR JUST LIGHTS UP	

1. Set the Audio Out Selector (On Remote controler) for STEREO position.
2. Set the output of Signal Generator to 1(KHz), −10dBV (316mVrms) and supply it to both Audio input jacks (L) and (R).
3. Adjust VR4004 so that the 0dB of Level Meter just lights up.

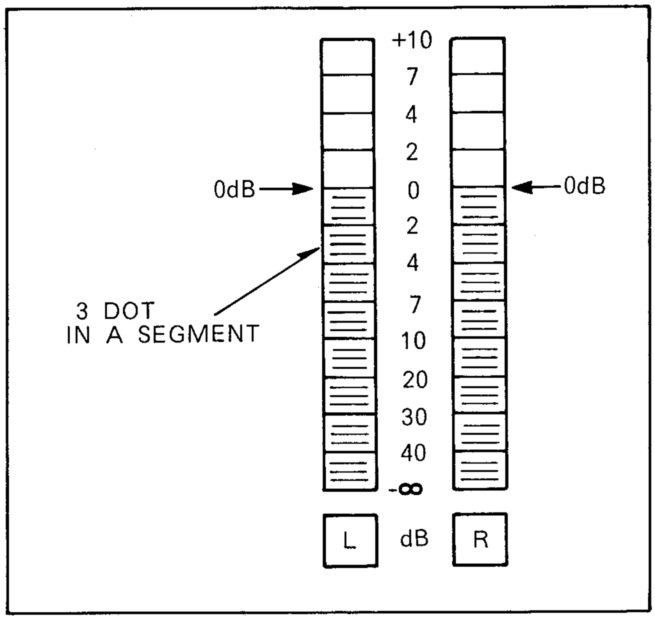

+10
7
4
2
0
2
4
7
10
20
30
40
-∞
0dB
0dB
3 DOT IN A SEGMENT
L
dB
R

Fig. E15

2-4-20. Hi-Fi AUDIO RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4507	VR4503	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	480+−10 (mVp−p)	

1. Set the Input Signal Selector to LINE.
2. Connect the oscilloscope to TP4507.
3. Place the Unit in recording with SP mode.
4. Adjust VR4503 so that the recording current becomes 480+−10 (mVp−p).

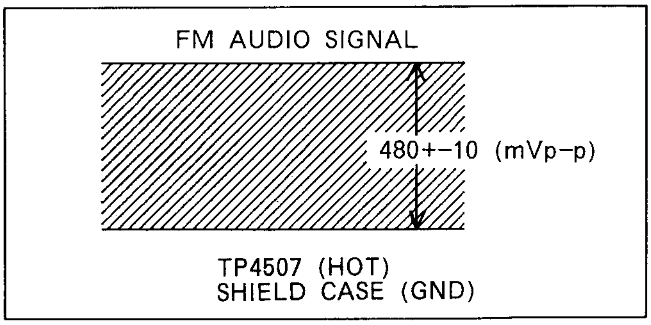

FM AUDIO SIGNAL
480+−10 (mVp−p)
TP4507 (HOT)
SHIELD CASE (GND)

Fig. E16

2-4-21. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4001	SELF RECORDING AND PLAYBACK	(AUDIO) 1(KHz) −10(dBV) (316mVrms) (VIDEO) COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GEN./ V.T.V.M.	E−E LEVEL+−0.5 (dB) (E−E LEVEL+−20mVrms)	

Note:
Befor this adjustment Tape Interchangeability Adjustment must be completed.

1. Set the Signal Generator to 1(KHz), −10(dBV) (316mVrms) and record the Colour Bar with 1(KHz), −10(dBV) (316mVrms) Audio Signal in SP mode.
2. Memorize the Audio E−E Level while recording Audio Signal 1(KHz), −10(dBV) (316mVrms).
3. Playback just recorded portion.
4. Adjust VR4001 so that the Playback Level becomes E−E Level+−0.5(dB).

2-4-22. Hi-Fi AUDIO MUTING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4502	VR4505	SELF RECORDING AND PLAYBACK	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	STEREO INDICATION JUST LIGHTS UP	

Note 1:
Before this adjustment "Tape interchangeability Adjustment" must be completed.

Note 2:
To achieve this adjustment, the luminance recording current adjustment should be performed as follows.

(1) Connect the Oscilloscope to TP507 (HOT) and TP508 (GND) and then adjust VR501 for 135 (mVp−p) [Refer to Luminance Recording Current Adjustment.]
(2) After this Adjustment, the Luminance Recording Current Adjustment must be returned to original position again.

1. Set Audio Out Selector to STEREO position.
2. Preadjust VR4505 until the Hi−Fi indicator on the front panel display turns the NORMAL indication.
3. Then slowly adjust VR4505 where the STEREO indication just light up.
4. Confirm that the abnormal sound does not contain in the playback Hi−Fi sound.

TIMER Section

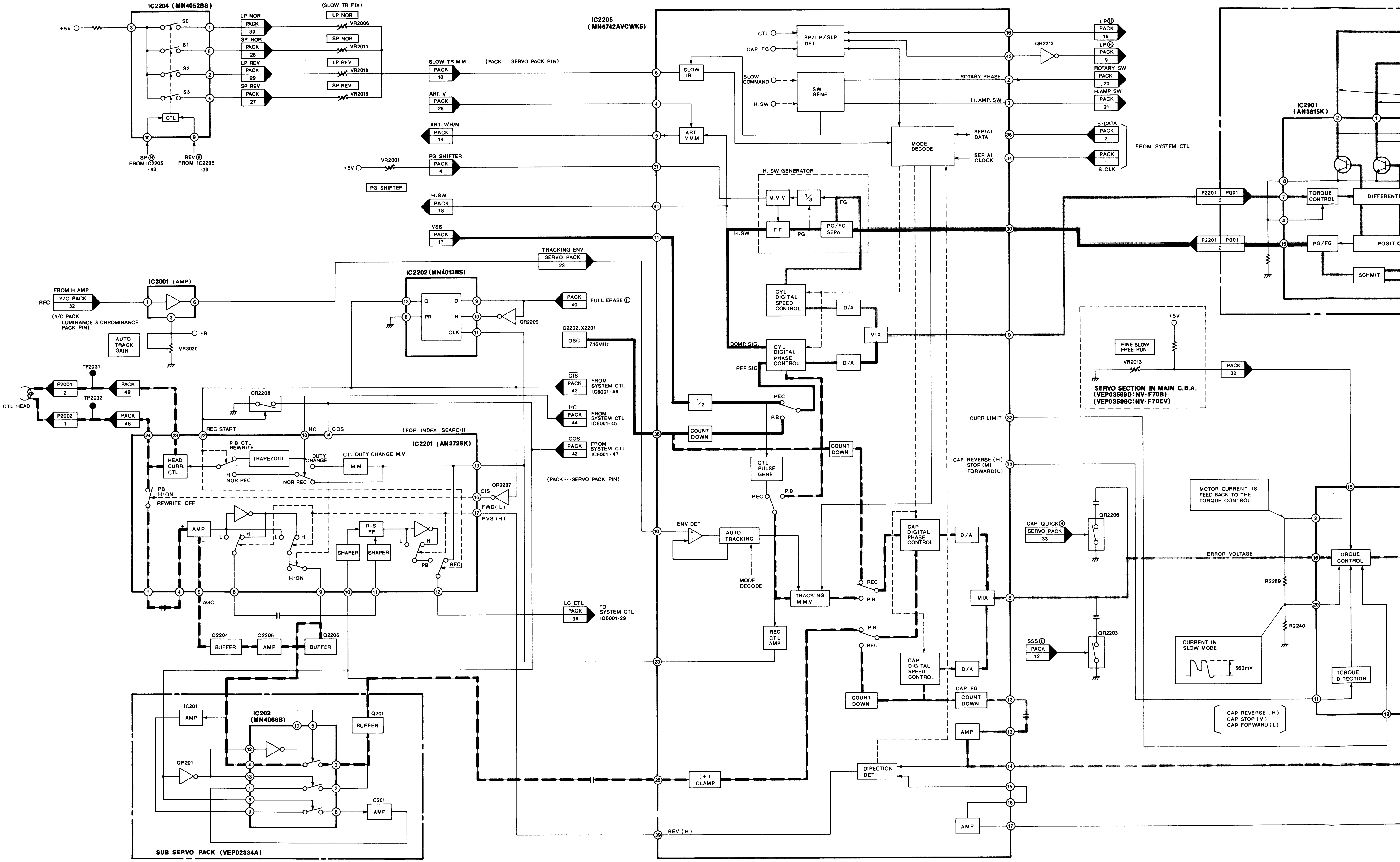
2-4-23. TIMER REFERENCE CLOCK ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7501	C7501	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	7812.5+−0.008 (us)	

1. Connect P7501−3 and P7501−4, then supply DC 5.0+−0.1(V) to P7501−3.
2. Connect P7501−6 and GND.
3. Connect the Frequency Counter to TP7501.
4. Adjust C7501 so that TP7501 becomes 7812.5+−0.008(us)

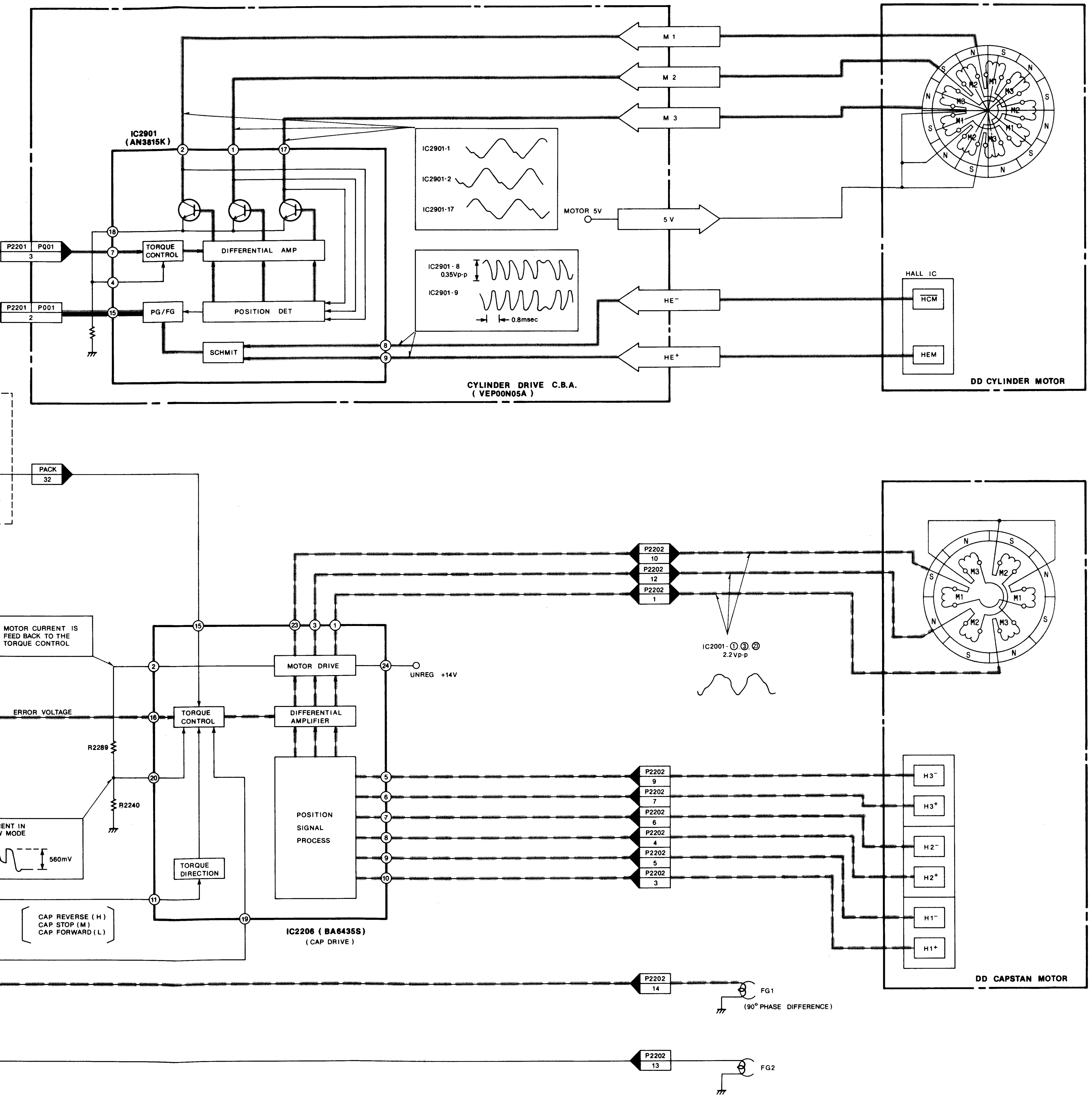
SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS
3-1. SERVO BLOCK DIAGRAM

——— CYLINDER SERVO PHASE LOOP
– – – CAPSTAN SERVO PHASE LOOP
——— CYLINDER SERVO SPEED LOOP
– – – CAPSTAN SERVO SPEED LOOP



IC2204 (MN4052BS)
+5V
S0
S1
S2
S3
CTL
SP Ⓗ FROM IC2205 ·43
REV Ⓗ FROM IC2205 ·39
LP NOR PACK 30
SP NOR PACK 28
LP REV PACK 29
SP REV PACK 27
(SLOW TR FIX)
VR2006
VR2011
VR2018
VR2019
SLOW TR M.M PACK 10
(PACK····· SERVO PACK PIN)
ART. V PACK 25
ART. V/H/N PACK 14
PG SHIFTER PACK 4
VR2001
PG SHIFTER
H.SW PACK 18
VSS PACK 17
TRACKING ENV. SERVO PACK 23
IC2205 (MN6742AVCWK5)
CTL
CAP FG
SP/LP/SLP DET
SLOW TR
SLOW COMMAND
H.SW
SW GENE
ART V.M.M
MODE DECODE
H. SW GENERATOR
M.M.V
1/3
FG
FF
PG
PG/FG SEPA
CYL DIGITAL SPEED CONTROL
CYL DIGITAL PHASE CONTROL
COMP. SIG.
REF. SIG
D/A
MIX
1/2
REC
P.B
COUNT DOWN
CTL PULSE GENE
ENV DET
AUTO TRACKING
MODE DECODE
TRACKING M.M.V.
REC CTL AMP
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
CAP FG
AMP
DIRECTION DET
(+) CLAMP
REV (H)
ROTARY PHASE
H. AMP. SW
SERIAL DATA
SERIAL CLOCK
CURR LIMIT
CAP REVERSE (H) STOP (M) FORWARD (L)
QR2213
LP Ⓗ PACK 16
LP Ⓗ PACK 9
ROTARY SW PACK 20
H.AMP SW PACK 21
S·DATA PACK 2
PACK 1 S.CLK
FROM SYSTEM CTL
IC2901 (AN3815K)
TORQUE CONTROL
DIFFERENT
P2201 PQ01 3
P2201 P001 2
PG/FG
POSITIO
SCHMIT
+5V
FINE SLOW FREE RUN
VR2013
PACK 32
SERVO SECTION IN MAIN C.B.A. (VEP03599D: NV-F70B) (VEP03599C: NV-F70EV)
CAP QUICK Ⓗ SERVO PACK 33
QR2206
SSS Ⓛ PACK 12
QR2203
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
R2289
R2240
CURRENT IN SLOW MODE
560mV
TORQUE DIRECTION
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
FROM H.AMP Y/C PACK 32
RFC
(Y/C PACK ····LUMINANCE & CHROMINANCE PACK PIN)
IC3001 (AMP)
+B
AUTO TRACK GAIN
VR3020
IC2202 (MN4013BS)
Q D PR R CLK
PACK 40 FULL ERASE Ⓗ
QR2209
Q2202, X2201 OSC 7.16MHz
CIS PACK 43 FROM SYSTEM CTL IC6001·46
HC PACK 44 FROM SYSTEM CTL IC6001·45
COS PACK 42 FROM SYSTEM CTL IC6001·47
(PACK····SERVO PACK PIN)
TP2031
TP2032
CTL HEAD
P2001 2
P2002 1
PACK 49
PACK 48
QR2208
REC START
HC
COS
(FOR INDEX SEARCH)
IC2201 (AN3726K)
HEAD CURR. CTL
P.B CTL REWRITE
TRAPEZOID
DUTY CHANGE
CTL DUTY CHANGE M.M
M.M
H NOR REC
NOR REC
PB H·ON REWRITE: OFF
CIS
QR2207
FWD (L)
RVS (H)
AMP
R·S FF
SHAPER
H:ON
AGC
Q2204 BUFFER
Q2205 AMP
Q2206 BUFFER
LC CTL PACK 39 TO SYSTEM CTL IC6001-29
IC201 AMP
IC202 (MN4066B)
Q201 BUFFER
QR201
SUB SERVO PACK (VEP02334A)

NDER SERVO SPEED LOOP
STAN SERVO SPEED LOOP


IC2901
(AN3815K)
M 1
M 2
M 3
IC2901-1
IC2901-2
IC2901-17
MOTOR 5V
5 V
IC2901-8
0.35Vp-p
IC2901-9
0.8msec
P2201 PQ01
3
P2201 PQ01
2
TORQUE CONTROL
DIFFERENTIAL AMP
PG/FG
POSITION DET
SCHMIT
HE⁻
HE⁺
HALL IC
HCM
HEM
CYLINDER DRIVE C.B.A.
(VEP00N05A)
DD CYLINDER MOTOR
PACK
32
P2202
10
P2202
12
P2202
1
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
MOTOR DRIVE
UNREG +14V
IC2001-①③㉓
2.2Vp-p
ERROR VOLTAGE
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
R2289
R2240
ENT IN
MODE
560mV
POSITION SIGNAL PROCESS
TORQUE DIRECTION
CAP REVERSE (H)
CAP STOP (M)
CAP FORWARD (L)
IC2206 (BA6435S)
(CAP DRIVE)
P2202
9
P2202
7
P2202
6
P2202
4
P2202
5
P2202
3
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
DD CAPSTAN MOTOR
P2202
14
FG1
(90° PHASE DIFFERENCE)
P2202
13
FG2

<table>
<tr><th>SYMBOL</th><th>TRUTH VALUE TABLE</th></tr>
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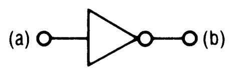</td><td><table><tr><td>IN</td><td>(a)</td><td>H</td><td>L</td></tr><tr><td>OUT</td><td>(b)</td><td>L</td><td>H</td></tr></table></td></tr>
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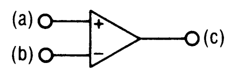</td><td><table><tr><td>IN</td><td>(a)
(b)</td><td>(a) > (b)</td><td>(a) < (b)</td></tr><tr><td>OUT</td><td>(c)</td><td>H</td><td>L</td></tr></table></td></tr>
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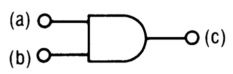</td><td><table><tr><td>IN</td><td>(a)</td><td>L</td><td>L</td><td>H</td><td>H</td></tr><tr><td></td><td>(b)</td><td>L</td><td>H</td><td>L</td><td>H</td></tr><tr><td>OUT</td><td>(c)</td><td>L</td><td>L</td><td>L</td><td>H</td></tr></table></td></tr>
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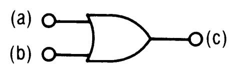</td><td><table><tr><td>IN</td><td>(a)</td><td>L</td><td>L</td><td>H</td><td>H</td></tr><tr><td></td><td>(b)</td><td>L</td><td>H</td><td>L</td><td>H</td></tr><tr><td>OUT</td><td>(c)</td><td>L</td><td>H</td><td>H</td><td>H</td></tr></table></td></tr>
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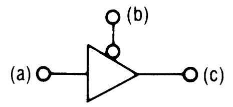</td><td><table><tr><td>IN</td><td>(a)</td><td>H</td><td>L</td><td>H or L</td></tr><tr><td></td><td>(b)</td><td>L</td><td>L</td><td>H</td></tr><tr><td>OUT</td><td>(c)</td><td>H</td><td>L</td><td>※</td></tr></table>※ High Impedance</td></tr>
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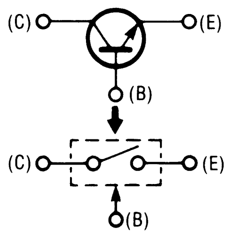
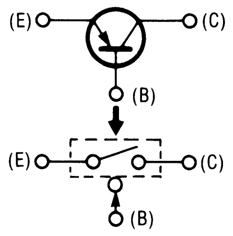
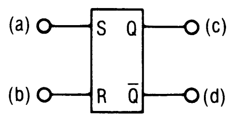
</td><td><table><tr><td>BASE</td><td>H</td><td>L</td></tr><tr><td>TR. SW</td><td>ON</td><td>OFF</td></tr></table></td></tr>
<tr><td>TR. SW (PNP TYPE)
</td><td><table><tr><td>BASE</td><td>H</td><td>L</td></tr><tr><td>TR. SW</td><td>OFF</td><td>ON</td></tr></table></td></tr>
<tr><td>R-S TYPE FLIP-FLOP
</td><td><table><tr><td>IN</td><td>(a)</td><td>L</td><td>L</td><td>⎍</td></tr><tr><td></td><td>(b)</td><td>L</td><td>⎍</td><td>L</td></tr><tr><td>OUT</td><td>(c)</td><td>※</td><td>L</td><td>H</td></tr><tr><td></td><td>(d)</td><td>◆</td><td>H</td><td>L</td></tr></table>※ Initial condition is maintained.
◆ Initial condition is reverced.</td></tr>
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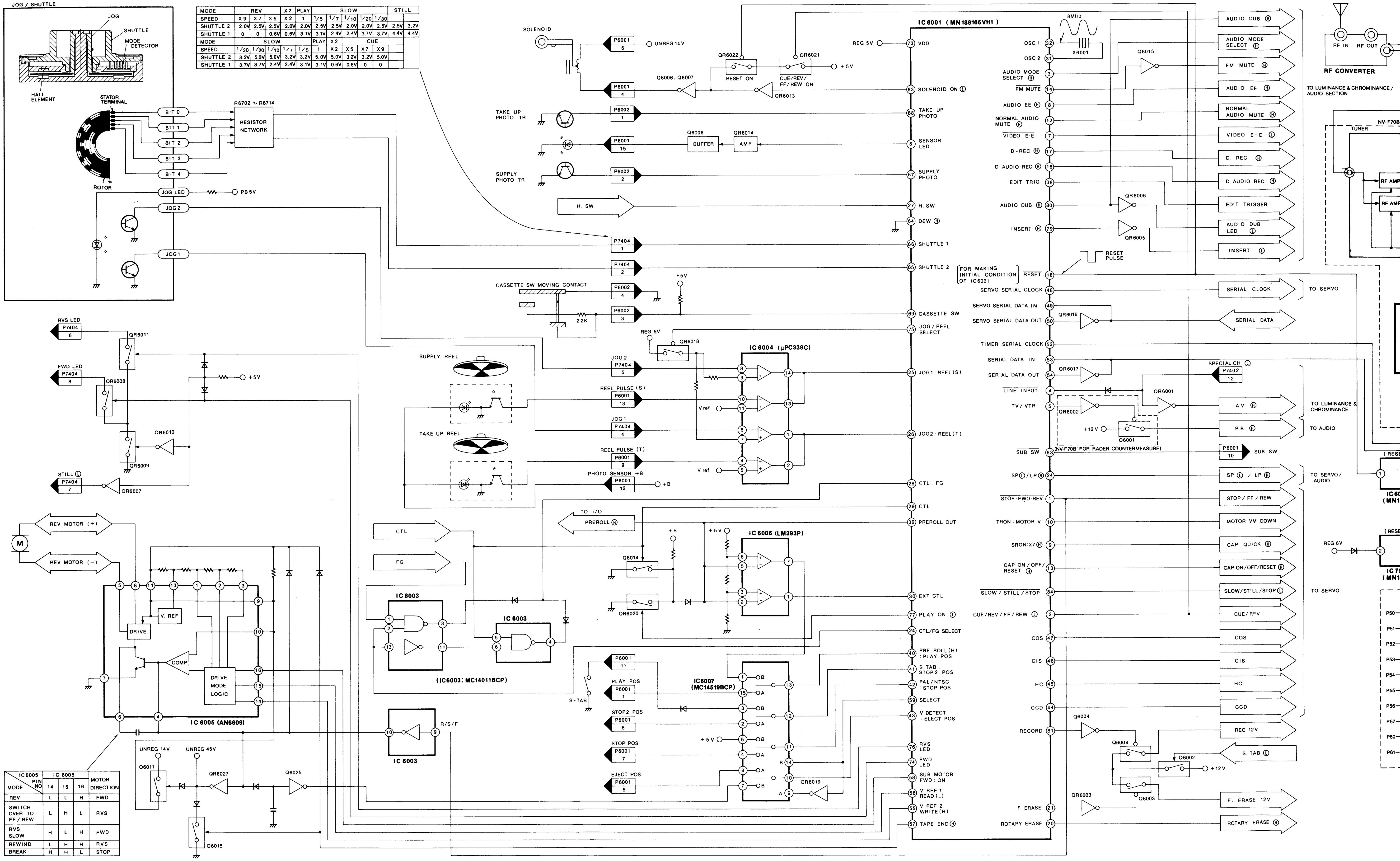
3-2. SYSTEM CONTROL BLOCK DIAGRAM


JOG / SHUTTLE
JOG
SHUTTLE
MODE DETECTOR
HALL ELEMENT
STATOR TERMINAL
ROTOR
BIT 0
BIT 1
BIT 2
BIT 3
BIT 4
JOG LED
PB 5V
JOG 2
JOG 1
R6702 ~ R6714
RESISTOR NETWORK
RVS LED
P7404 6
QR6011
FWD LED
P7404 8
QR6008
QR6010
QR6009
+5V
STILL Ⓛ
P7404 7
QR6007
REV MOTOR (+)
REV MOTOR (−)
M
V. REF
DRIVE
COMP
DRIVE MODE LOGIC
IC 6005 (AN6609)
UNREG 14V
UNREG 45V
Q6011
QR6027
Q6025
Q6015
SOLENOID
P6001 6
UNREG 14V
P6001 4
Q6006, Q6007
QR6022
RESET : ON
QR6021
CUE/REV/ FF/REW : ON
QR6013
+5V
TAKE UP PHOTO TR
P6002 1
P6001 15
Q6006 BUFFER
QR6014 AMP
SUPPLY PHOTO TR
P6002 2
H. SW
P7404 1
P7404 2
CASSETTE SW MOVING CONTACT
P6002 4
P6002 3
2.2K
+5V
REG 5V
QR6018
SUPPLY REEL
TAKE UP REEL
JOG 2 P7404 5
REEL PULSE (S) P6001 13
JOG 1 P7404 4
REEL PULSE (T) P6001 9
PHOTO SENSOR +B P6001 12
+B
V ref
IC 6004 (μPC339C)
TO I/O
PREROLL Ⓗ
CTL
FG
IC 6003
IC 6003
(IC6003: MC14011BCP)
Q6014
Q6020
+B
+5V
IC 6006 (LM393P)
IC 6003
R/S/F
P6001 11
S-TAB
PLAY POS P6001 1
STOP2 POS P6001 8
STOP POS P6001 7
EJECT POS P6001 5
IC6007 (MC14519BCP)
QR6019
REG 5V
IC 6001 (MN188166VHI)
VDD
SOLENOID ON Ⓛ
TAKE UP PHOTO
SENSOR LED
SUPPLY PHOTO
H. SW
DEW Ⓗ
SHUTTLE 1
SHUTTLE 2
CASSETTE SW
JOG / REEL SELECT
JOG1 : REEL(S)
JOG2 : REEL(T)
CTL : FG
CTL
PREROLL OUT
EXT CTL
PLAY ON : Ⓛ
CTL/FG SELECT
PRE ROLL(H) : PLAY POS
S. TAB : STOP 2 POS
PAL/NTSC : STOP POS
SELECT
V DETECT : ELECT POS
RVS LED
FWD LED
SUB MOTOR FWD : ON
V. REF 1 READ (L)
V. REF 2 WRITE (H)
TAPE END Ⓗ
8MHz
X6001
OSC 1
OSC 2
AUDIO MODE SELECT Ⓗ
FM MUTE
AUDIO EE Ⓗ
NORMAL AUDIO MUTE Ⓗ
VIDEO E-E
D-REC Ⓗ
D-AUDIO REC Ⓗ
EDIT TRIG
AUDIO DUB Ⓗ
INSERT Ⓗ
FOR MAKING INITIAL CONDITION OF IC6001
RESET
RESET PULSE
SERVO SERIAL CLOCK
SERVO SERIAL DATA IN
SERVO SERIAL DATA OUT
TIMER SERIAL CLOCK
SERIAL DATA IN
SERIAL DATA OUT
LINE INPUT
TV / VTR
SUB SW
SP Ⓛ / LP Ⓗ
STOP : FWD · REV
TRON : MOTOR V
SRON : X7 Ⓗ
CAP ON / OFF / RESET Ⓗ
SLOW / STILL / STOP
CUE / REV / FF / REW Ⓛ
COS
CIS
HC
CCD
RECORD
F. ERASE
ROTARY ERASE
Q6015
QR6006
QR6005
QR6016
QR6017
QR6002
QR6001
+12V
Q6001
(NV-F70B : FOR RADER COUNTERMEASURE)
Q6004
QR6003
Q6002
Q6003
+12V
AUDIO DUB Ⓗ
AUDIO MODE SELECT Ⓗ
FM MUTE Ⓗ
AUDIO EE Ⓗ
NORMAL AUDIO MUTE Ⓗ
VIDEO E-E Ⓛ
D. REC Ⓗ
D. AUDIO REC Ⓗ
EDIT TRIGGER
AUDIO DUB LED Ⓛ
INSERT Ⓛ
SERIAL CLOCK
TO SERVO
SERIAL DATA
SPECIAL CH Ⓛ
P7402 12
A V Ⓗ
P.B Ⓗ
TO LUMINANCE & CHROMINANCE
TO AUDIO
P6001 10
SUB SW
SP Ⓛ / LP Ⓗ
TO SERVO / AUDIO
STOP / FF / FEW
MOTOR VM DOWN
CAP QUICK Ⓗ
CAP ON/OFF/RESET Ⓗ
SLOW/STILL/STOP Ⓛ
TO SERVO
CUE/REV
COS
CIS
HC
CCD
REC 12V
S. TAB Ⓛ
F. ERASE 12V
ROTARY ERASE Ⓗ
RF IN
RF OUT
RF CONVERTER
TO LUMINANCE & CHROMINANCE / AUDIO SECTION
NV-F70B
TUNER
RF AMP
RF AMP
REG 6V
P50
P51
P52
P53
P54
P55
P56
P57
P60
P61

MODE	REV			X 2	PLAY	SLOW					STILL	
SPEED	X 9	X 7	X 5	X 2	1	1/5	1/7	1/10	1/20	1/30		
SHUTTLE 2	2.0V	2.5V	2.5V	2.0V	2.0V	2.5V	2.5V	2.0V	2.0V	2.5V	2.5V	3.2V
SHUTTLE 1	0	0	0.6V	0.6V	3.1V	3.1V	2.4V	2.4V	3.7V	3.7V	4.4V	4.4V
MODE	SLOW					PLAY	X 2	CUE				
SPEED	1/30	1/20	1/10	1/7	1/5	1	X 2	X 5	X 7	X 9		
SHUTTLE 2	3.2V	5.0V	5.0V	3.2V	3.2V	5.0V	5.0V	3.2V	3.2V	5.0V		
SHUTTLE 1	3.7V	3.7V	2.4V	2.4V	3.1V	3.1V	0.6V	0.6V	0	0		

IC6005 PIN NO / MODE	IC 6005 14	IC 6005 15	IC 6005 16	MOTOR DIRECTION
REV	L	L	H	FWD
SWITCH OVER TO FF / REW	L	H	L	RVS
RVS SLOW	H	L	H	FWD
REWIND	L	H	H	RVS
BREAK	H	H	L	STOP

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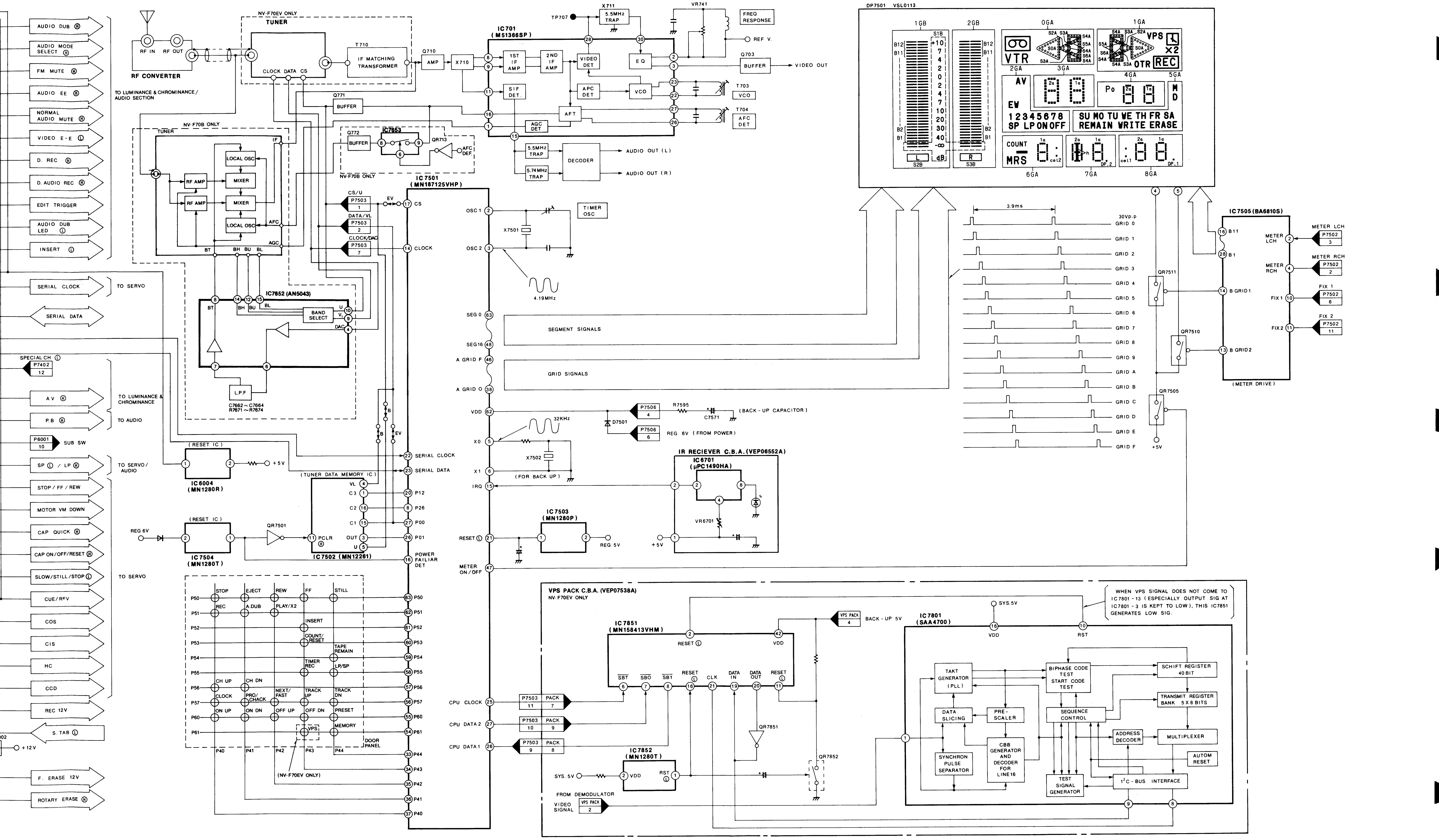
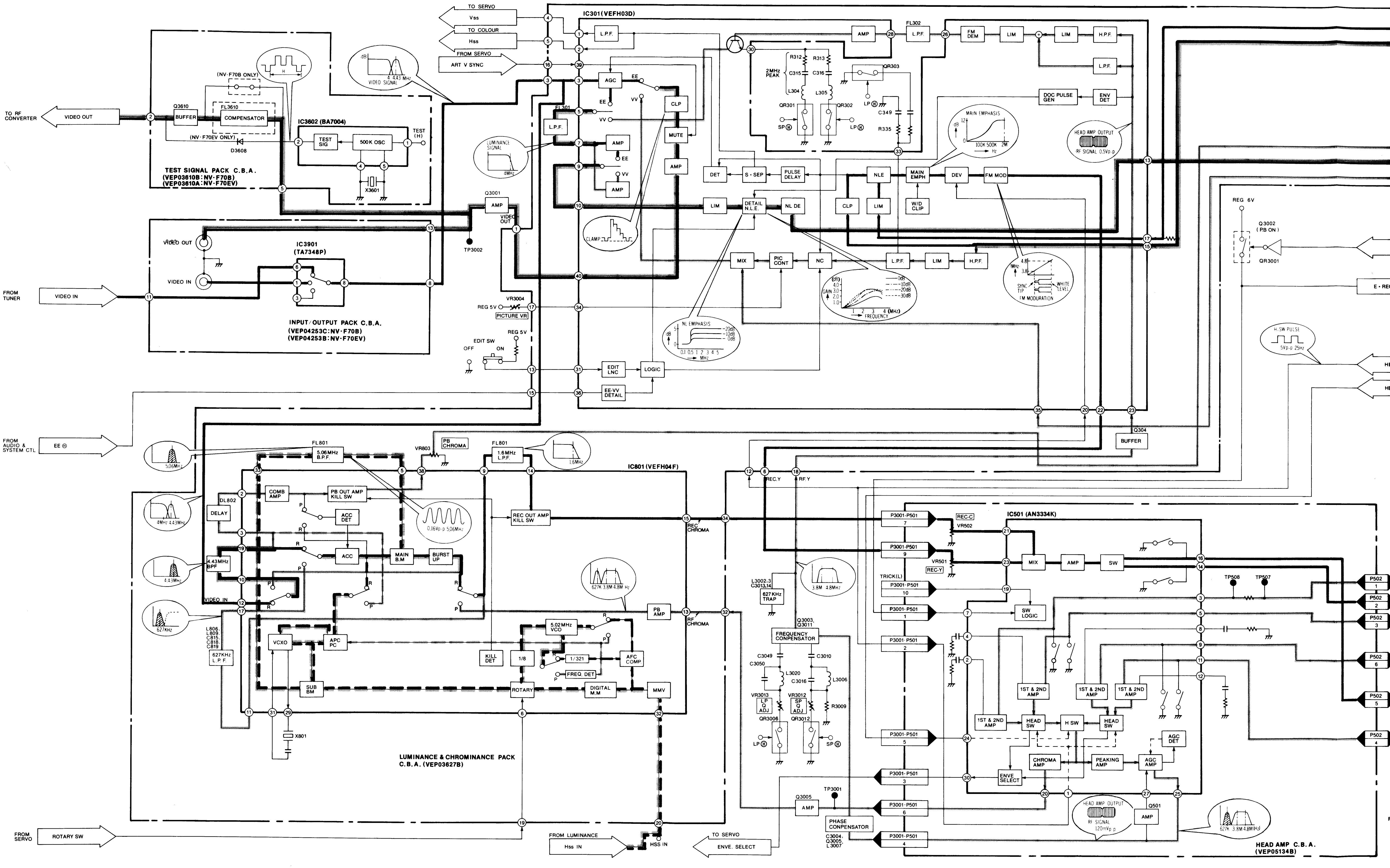
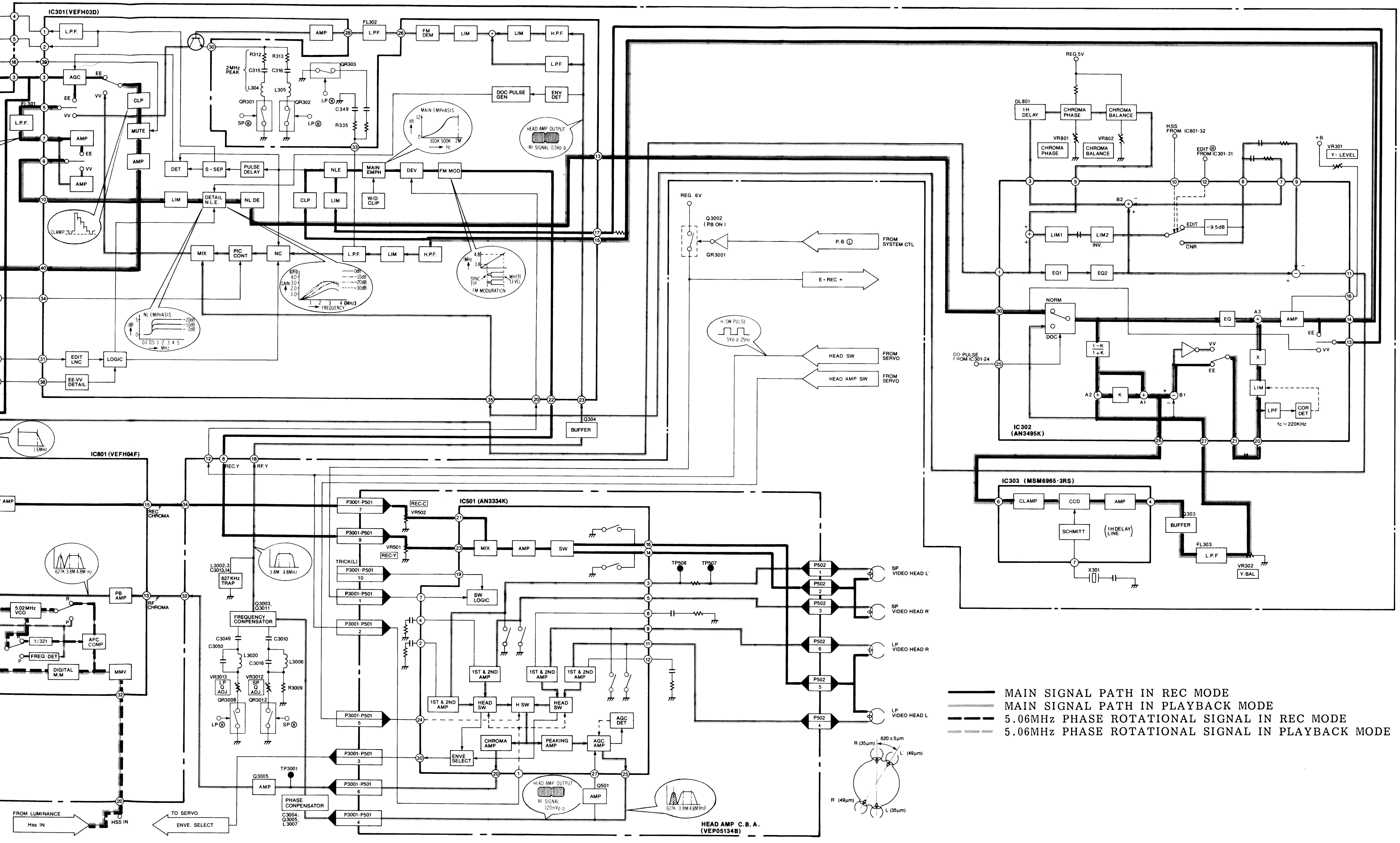
SERVO Section


AUDIO DUB Ⓗ
AUDIO MODE SELECT Ⓗ
FM MUTE Ⓗ
AUDIO EE Ⓗ
NORMAL AUDIO MUTE Ⓗ
VIDEO E-E Ⓛ
D. REC Ⓗ
D. AUDIO REC Ⓗ
EDIT TRIGGER
AUDIO DUB LED Ⓛ
INSERT Ⓛ
TO LUMINANCE & CHROMINANCE / AUDIO SECTION
SERIAL CLOCK
TO SERVO
SERIAL DATA
SPECIAL CH Ⓛ
P7402
12
AV Ⓗ
TO LUMINANCE & CHROMINANCE
P.B Ⓗ
TO AUDIO
P6001
10
SUB SW
SP Ⓛ / LP Ⓗ
TO SERVO / AUDIO
STOP / FF / REW
MOTOR VM DOWN
CAP QUICK Ⓗ
CAP ON/OFF/RESET Ⓗ
SLOW/STILL/STOP Ⓛ
TO SERVO
CUE/REV
COS
CIS
HC
CCD
REC 12V
S. TAB Ⓛ
+12V
F. ERASE 12V
ROTARY ERASE Ⓗ
RF IN
RF OUT
RF CONVERTER
NV-F70EV ONLY
TUNER
CLOCK DATA CS
T710
IF MATCHING TRANSFORMER
Q710
AMP
X710
Q771
BUFFER
NV-F70B ONLY
TUNER
IF
LOCAL OSC
MIXER
RF AMP
AFC
AGC
BT
BH BU BL
Q772
BUFFER
IC7653
QR713
AFC DEF.
IC7652 (AN5043)
BAND SELECT
U
V
DAC
L.P.F
C7662 ~ C7664
R7671 ~ R7674
TP707
X711
5.5MHz TRAP
VR741
FREQ RESPONSE
IC701
(M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
SIF DET.
APC DET
VCO
AFT
AGC DET
REF V.
Q703
BUFFER
VIDEO OUT
T703
VCO
T704
AFC DET
5.5MHz TRAP
5.74MHz TRAP
DECODER
AUDIO OUT (L)
AUDIO OUT (R)
IC7501
(MN187125VHP)
CS/U
P7503
1
EV
CS
DATA/VL
P7503
2
CLOCK/DAC
P7503
7
CLOCK
OSC 1
OSC 2
X7501
TIMER OSC
4.19MHz
SEG 0
SEG16
SEGMENT SIGNALS
A GRID F
A GRID 0
GRID SIGNALS
VDD
P7506
4
R7595
C7571
(BACK-UP CAPACITOR)
D7501
P7506
6
REG 6V (FROM POWER)
X0
32KHz
X7502
(FOR BACK UP)
X1
IRQ
IR RECIEVER C.B.A. (VEP06552A)
IC6701
(μPC1490HA)
VR6701
+5V
RESET Ⓛ
IC7503
(MN1280P)
REG 5V
METER ON / OFF
(RESET IC)
IC6004
(MN1280R)
+5V
(TUNER DATA MEMORY IC)
VL
C3
C2
C1
OUT
U
SERIAL CLOCK
SERIAL DATA
P12
P26
P00
P01
POWER FAILIAR DET
REG 6V
(RESET IC)
IC7504
(MN1280T)
QR7501
PCLR Ⓗ
IC7502 (MN12261)
STOP
EJECT
REW
FF
STILL
REC
A.DUB
PLAY/X2
INSERT
COUNT/RESET
TAPE REMAIN
TIMER REC
LP/SP
CH UP
CH DN
CLOCK
PRO/CHACK
NEXT/FAST
TRACK UP
TRACK DN
ON UP
ON DN
OFF UP
OFF DN
PRESET
VPS
MEMORY
DOOR PANEL
P50
P51
P52
P53
P54
P55
P56
P57
P60
P61
P40
P41
P42
P43
P44
(NV-F70EV ONLY)
CPU CLOCK
CPU DATA 2
CPU DATA 1
P7503
PACK
11
7
10
9
8
DP7501 VSL0113
1GB
2GB
0GA
1GA
S1B
B12
B11
B2
B1
+10
7
4
2
0
2
4
7
10
20
30
40
-∞
dB
L
R
S2B
S3B
VTR
S2A
S3A
S0A
S4A
S5A
S6A
VPS
×2
OTR
REC
2GA
3GA
4GA
5GA
AV
Po
M
D
EW
12345678
SP LP ON OFF
SU MO TU WE TH FR SA
REMAIN WRITE ERASE
COUNT
MRS
1a
2a
col2
col1
DP.2
DP.1
6GA
7GA
8GA
3.9ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID A
GRID B
GRID C
GRID D
GRID E
GRID F
QR7511
QR7510
QR7505
+5V
IC7505 (BA6810S)
B11
B1
B GRID1
B GRID2
METER LCH
METER RCH
FIX 1
FIX 2
P7502
3
2
6
11
(METER DRIVE)
VPS PACK C.B.A. (VEP07538A)
NV-F70EV ONLY
SYS.5V
WHEN VPS SIGNAL DOES NOT COME TO IC7801-13 (ESPECIALLY OUTPUT SIG AT IC7801-3 IS KEPT TO LOW), THIS IC7851 GENERATES LOW SIG.
IC7851
(MN158413VHM)
RESET Ⓛ
VDD
VPS PACK
4
BACK-UP 5V
SBT
SBO
SB1
RESET Ⓛ
CLK
DATA IN
DATA OUT
RESET Ⓛ
QR7851
IC7852
(MN1280T)
SYS. 5V
VDD
RST Ⓛ
QR7852
FROM DEMODULATOR
VIDEO SIGNAL
VPS PACK
2
IC7801
(SAA4700)
VDD
RST
TAKT GENERATOR (PLL)
BIPHASE CODE TEST
START CODE TEST
SCHIFT REGISTER 40 BIT
TRANSMIT REGISTER BANK 5×8 BITS
DATA SLICING
PRE-SCALER
SEQUENCE CONTROL
ADDRESS DECODER
MULTIPLEXER
SYNCHRON PULSE SEPARATOR
CBB GENERATOR AND DECODER FOR LINE16
AUTOM RESET
TEST SIGNAL GENERATOR
I²C-BUS INTERFACE

3-3. LUMINANCE & CHROMINANCE BLOCK DIAGRAM


TO SERVO
Vss
TO COLOUR
Hss
FROM SERVO
ART V SYNC
IC301 (VEFH03D)
L.P.F.
AGC
EE
VV
CLP
MUTE
AMP
FL301
DET
S・SEP
PULSE DELAY
LIM
DETAIL N.L.E.
NL DE
MIX
PIC CONT
NC
EDIT LNC
LOGIC
EE・VV DETAIL
AMP
FL302
FM DEM
LIM
H.P.F.
DOC PULSE GEN
ENV DET
2MHz PEAK
R312
R313
C315
C316
L304
L305
QR301
QR302
QR303
SP Ⓗ
LP Ⓗ
C349
R335
NLE
MAIN EMPH
DEV
FM MOD
CLP
W/D CLIP
MAIN EMPHASIS
100K 500K 2M
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
REG 6V
Q3002 (PB ON)
QR3001
E・REC
H.SW PULSE
5Vp-p 25Hz
4.8 MHz 3.8
SYNC TIP
WHITE LEVEL
FM MODURATION
GAIN (dB) 4.0 3.0 2.0 1.0
-0dB -10dB -20dB -30dB
FREQUENCY (MHz)
NL EMPHASIS
-20dB -10dB -0dB
0.1 0.5 1 2 3 4 5 MHz
TO RF CONVERTER
VIDEO OUT
Q3610
BUFFER
FL3610
COMPENSATOR
(NV-F70B ONLY)
(NV-F70EV ONLY)
D3608
IC3602 (BA7004)
TEST SIG
500K OSC
TEST (H)
X3601
TEST SIGNAL PACK C.B.A.
(VEP03610B: NV-F70B)
(VEP03610A: NV-F70EV)
4.443 MHz
VIDEO SIGNAL
LUMINANCE SIGNAL
4MHz
CLAMP
Q3001
AMP
VIDEO OUT
TP3002
VIDEO OUT
VIDEO IN
IC3901 (TA7348P)
INPUT/OUTPUT PACK C.B.A.
(VEP04253C: NV-F70B)
(VEP04253B: NV-F70EV)
FROM TUNER
VIDEO IN
REG 5V
VR3004
PICTURE VR
EDIT SW
OFF ON
FROM AUDIO & SYSTEM CTL
EE Ⓗ
FL801
5.06MHz B.P.F.
VR803
PB CHROMA
1.6MHz L.P.F.
IC801 (VEFH04F)
5.06MHz
DL802
DELAY
COMB AMP
PB OUT AMP KILL SW
ACC DET
ACC
MAIN B.M
BURST UP
0.16Vp-p 5.06MHz
REC OUT AMP KILL SW
REC CHROMA
4MHz 4.43MHz
4.43MHz BPF
VIDEO IN
627KHz
L806, L809, C815, C818, C819
627KHz L.P.F.
627K 3.8M 4.8M Hz
VCXO
APC PC
5.02MHz VCO
1/321
AFC COMP
FREQ. DET
KILL DET
1/8
SUB BM
ROTARY
DIGITAL M.M
MMV
PB AMP
RF CHROMA
X801
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627B)
FROM SERVO
ROTARY SW
FROM LUMINANCE
Hss IN
HSS IN
TO SERVO
ENVE. SELECT
REC.Y
RF.Y
L3002,3 C3013,14
627KHz TRAP
3.8M 4.8MHz
Q3003, Q3011
FREQUENCY CONPENSATOR
C3049
C3050
L3020
C3010
C3016
L3006
VR3013 LP Q ADJ
VR3012 SP Q ADJ
R3009
QR3006
QR3012
Q3005
AMP
TP3001
PHASE CONPENSATOR
C3004, Q3005, L3007
Q304
BUFFER
IC501 (AN3334K)
P3001-P501
REC-C
VR502
VR501
REC-Y
TRICK(L)
MIX
AMP
SW
SW LOGIC
TP508
TP507
P502
1ST & 2ND AMP
HEAD SW
H SW
CHROMA AMP
PEAKING AMP
AGC AMP
AGC DET
ENVE SELECT
HEAD AMP OUTPUT
RF SIGNAL 120mVp-p
Q501
627K 3.8M 4.8M(Hz)
HEAD AMP C.B.A. (VEP05134B)


IC301 (VEFH03D)
L.P.F.
AGC
EE
VV
CLP
MUTE
AMP
FL301
L.P.F.
CLAMP
AMP
FL302
L.P.F.
FM DEM
LIM
LIM
H.P.F.
L.P.F.
2MHz PEAK
R312
R313
C315
C316
L304
L305
QR301
QR302
QR303
SP Ⓗ
LP Ⓗ
C349
R335
DOC PULSE GEN
ENV DET
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
MAIN EMPHASIS
100K 500K 2M
DET
S・SEP
PULSE DELAY
NLE
MAIN EMPH
DEV
FM MOD
LIM
DETAIL N.L.E.
NL DE
CLP
LIM
W/D CLIP
MIX
PIC CONT
NC
L.P.F.
LIM
H.P.F.
GAIN
FREQUENCY (MHz)
SYNC TIP
WHITE LEVEL
FM MODURATION
NL EMPHASIS
EDIT LNC
LOGIC
EE-VV DETAIL
Q304
BUFFER
REG 6V
Q3002 (P.B ON)
QR3001
P.B Ⓛ
FROM SYSTEM CTL
E・REC
H.SW PULSE
5Vp-p 25Hz
HEAD SW
FROM SERVO
HEAD AMP SW
FROM SERVO
IC801 (VEFH04F)
1.6MHz
REC.Y
RF.Y
REC CHROMA
PB AMP
RF CHROMA
627K 3.8M 4.8MHz
5.02MHz VCO
1/321
AFC COMP
FREQ. DET
DIGITAL M.M
MMV
FROM LUMINANCE
Hss IN
HSS IN
TO SERVO
ENVE. SELECT
L3002,3 C3013,14
627KHz TRAP
3.8M 4.8MHz
Q3003, Q3011
FREQUENCY CONPENSATOR
C3049
C3050
C3010
L3020
C3016
L3006
VR3013
LP Q ADJ
VR3012
SP Q ADJ
R3009
QR3006
QR3012
Q3005
AMP
TP3001
PHASE CONPENSATOR
C3004, Q3005, L3007
IC501 (AN3334K)
P3001-P501
REC·C
VR502
VR501
REC·Y
TRICK(L)
MIX
AMP
SW
SW LOGIC
TP508
TP507
1ST & 2ND AMP
HEAD SW
H SW
CHROMA AMP
PEAKING AMP
AGC AMP
AGC DET
ENVE SELECT
HEAD AMP OUTPUT
RF SIGNAL 120mVp-p
Q501
AMP
627K 3.8M 4.8MHz
HEAD AMP C.B.A. (VEP05134B)
P502
SP VIDEO HEAD L'
SP VIDEO HEAD R'
LP VIDEO HEAD R
LP VIDEO HEAD L
620±5μm
R (35μm)
L' (49μm)
R' (49μm)
L (35μm)
REG 5V
DL801
1H DELAY
CHROMA PHASE
CHROMA BALANCE
VR801
VR802
H.SS FROM IC801-32
EDIT Ⓗ FROM IC301-31
+B
VR301
Y-LEVEL
B2
LIM1
LIM2
INV.
EDIT
-9.5dB
CNR
EQ1
EQ2
NORM
DOC
EQ
A3
AMP
EE
VV
DO PULSE FROM IC301-24
1-K / 1+K
K
A2
A1
B1
X
LIM
LPF
COR DET
fc≒220KHz
IC302 (AN3495K)
IC303 (MSM6965-3RS)
CLAMP
CCD
AMP
SCHMITT
(1H DELAY LINE)
X301
Q303
BUFFER
FL303
L.P.F
VR302
Y-BAL
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

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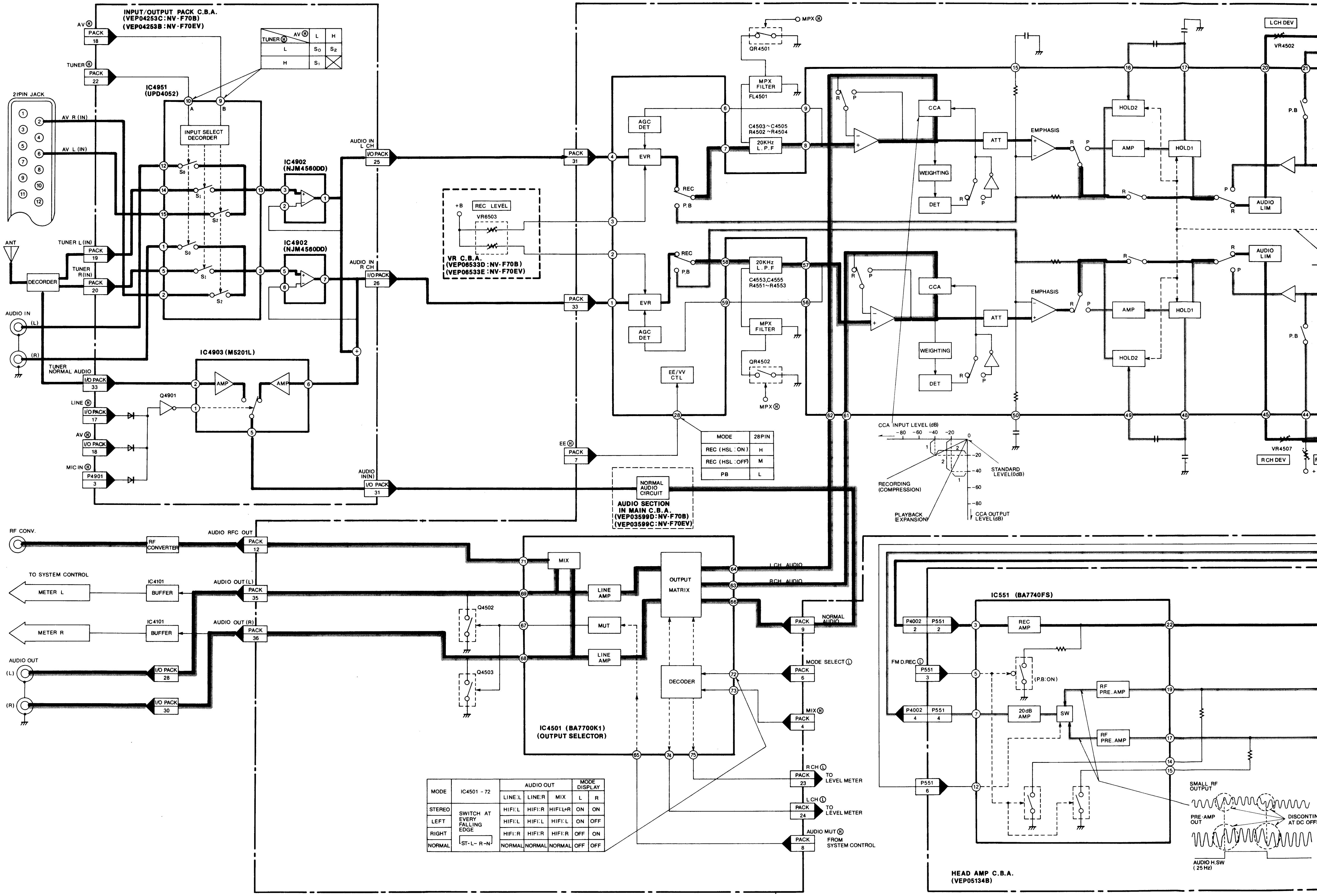
Hi-Fi AUDIO PACK Section

3-4. Hi-Fi AUDIO BLOCK DIAGRAM

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE

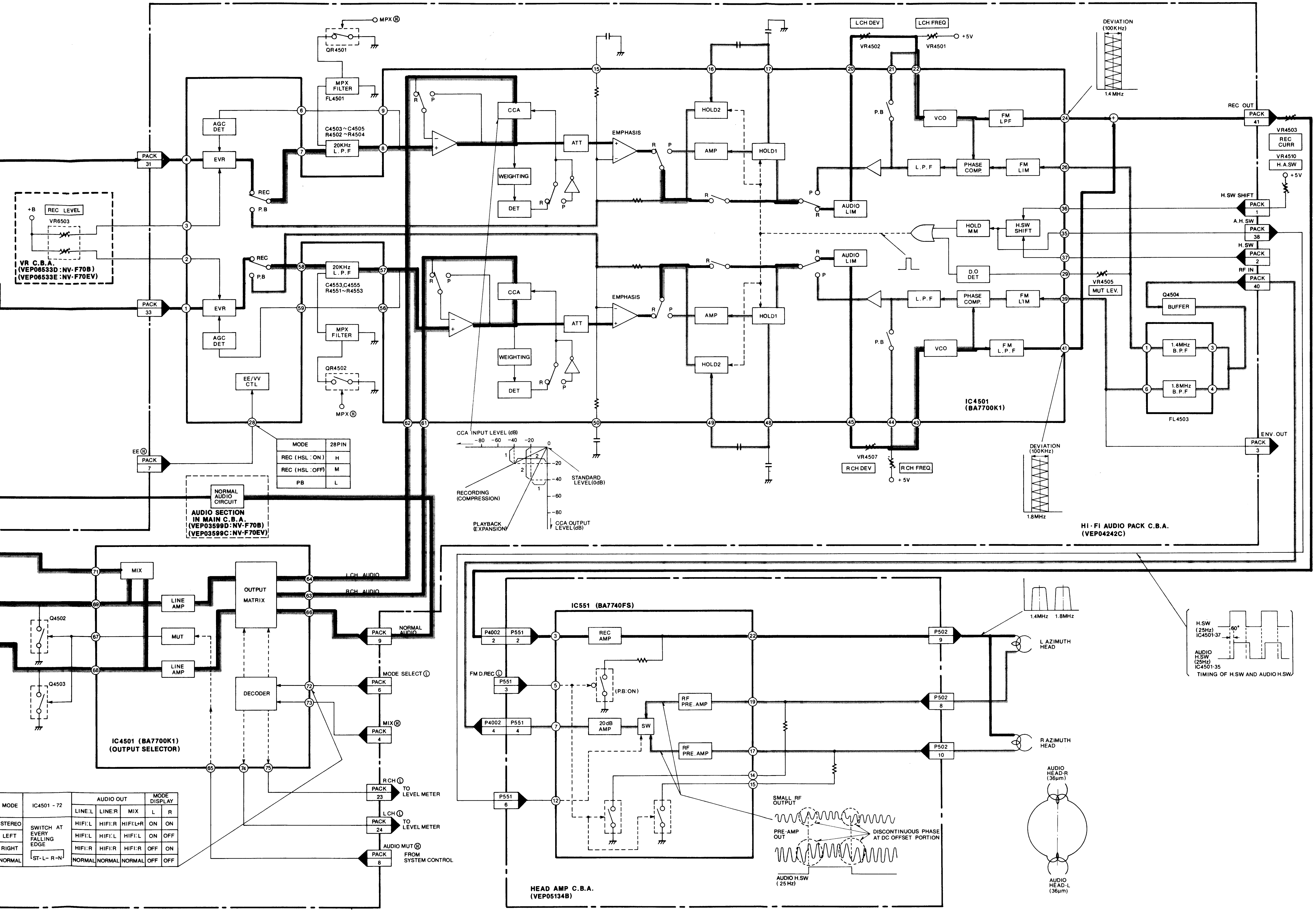

INPUT/OUTPUT PACK C.B.A.
(VEP04253C:NV-F70B)
(VEP04253B:NV-F70EV)
AV Ⓗ
PACK 18
TUNER Ⓗ
PACK 22
21PIN JACK
AV R (IN)
AV L (IN)
IC4951
(UPD4052)
A
B
INPUT SELECT DECORDER
S_0
S_1
S_2
IC4902
(NJM4560DD)
AUDIO IN L CH
I/O PACK 25
AUDIO IN R CH
I/O PACK 26
ANT
TUNER L (IN)
PACK 19
TUNER R(IN)
PACK 20
DECORDER
AUDIO IN
(L)
(R)
TUNER NORMAL AUDIO
I/O PACK 33
IC4903 (M5201L)
AMP
Q4901
LINE Ⓗ
I/O PACK 17
AV Ⓗ
I/O PACK 18
MIC IN Ⓗ
P4901 3
AUDIO IN(N)
I/O PACK 31
VR C.B.A.
(VEP06533D:NV-F70B)
(VEP06533E:NV-F70EV)
+B
REC LEVEL
VR6503
PACK 31
PACK 33
EE Ⓗ
PACK 7
AGC DET
EVR
REC
P.B
MPX Ⓗ
QR4501
MPX FILTER
FL4501
C4503~C4505
R4502~R4504
20KHz L.P.F
C4553,C4555
R4551~R4553
QR4502
EE/VV CTL
NORMAL AUDIO CIRCUIT
AUDIO SECTION IN MAIN C.B.A.
(VEP03599D:NV-F70B)
(VEP03599C:NV-F70EV)
R
P
CCA
WEIGHTING
DET
ATT
EMPHASIS
HOLD2
AMP
HOLD1
AUDIO LIM
LCH DEV
VR4502
RCH DEV
VR4507
CCA INPUT LEVEL (dB)
-80 -60 -40 -20 0
-20 -40 -60 -80
STANDARD LEVEL(0dB)
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL (dB)
RF CONV.
RF CONVERTER
AUDIO RFC OUT
PACK 12
TO SYSTEM CONTROL
METER L
METER R
IC4101
BUFFER
AUDIO OUT (L)
PACK 35
AUDIO OUT (R)
PACK 36
AUDIO OUT
I/O PACK 28
I/O PACK 30
Q4502
Q4503
MIX
LINE AMP
MUT
OUTPUT MATRIX
DECODER
L CH AUDIO
R CH AUDIO
IC4501 (BA7700K1)
(OUTPUT SELECTOR)
NORMAL AUDIO
PACK 9
MODE SELECT Ⓛ
PACK 6
MIX Ⓗ
PACK 4
R CH Ⓛ
PACK 23
TO LEVEL METER
L CH Ⓛ
PACK 24
AUDIO MUT Ⓗ
PACK 8
FROM SYSTEM CONTROL
IC551 (BA7740FS)
P4002 2
P551 2
REC AMP
FM D.REC Ⓛ
P551 3
(P.B:ON)
RF PRE.AMP
P4002 4
P551 4
20dB AMP
SW
P551 6
SMALL RF OUTPUT
PRE-AMP OUT
DISCONTIN AT DC OFFS
AUDIO H.SW (25 Hz)
HEAD AMP C.B.A.
(VEP05134B)

TUNER Ⓗ \ AV Ⓗ	L	H
L	S_0	S_2
H	S_1	☒

MODE	28PIN
REC (HSL : ON)	H
REC (HSL : OFF)	M
PB	L

MODE	IC4501 - 72	AUDIO OUT			MODE DISPLAY	
		LINE:L	LINE:R	MIX	L	R
STEREO	SWITCH AT EVERY FALLING EDGE [ST-L-R-N]	HIFI:L	HIFI:R	HIFI:L+R	ON	ON
LEFT		HIFI:L	HIFI:L	HIFI:L	ON	OFF
RIGHT		HIFI:R	HIFI:R	HIFI:R	OFF	ON
NORMAL		NORMAL	NORMAL	NORMAL	OFF	OFF

MAIN SIGNAL PATH IN REC MODE — MAIN SIGNAL PATH IN PLAYBACK MODE

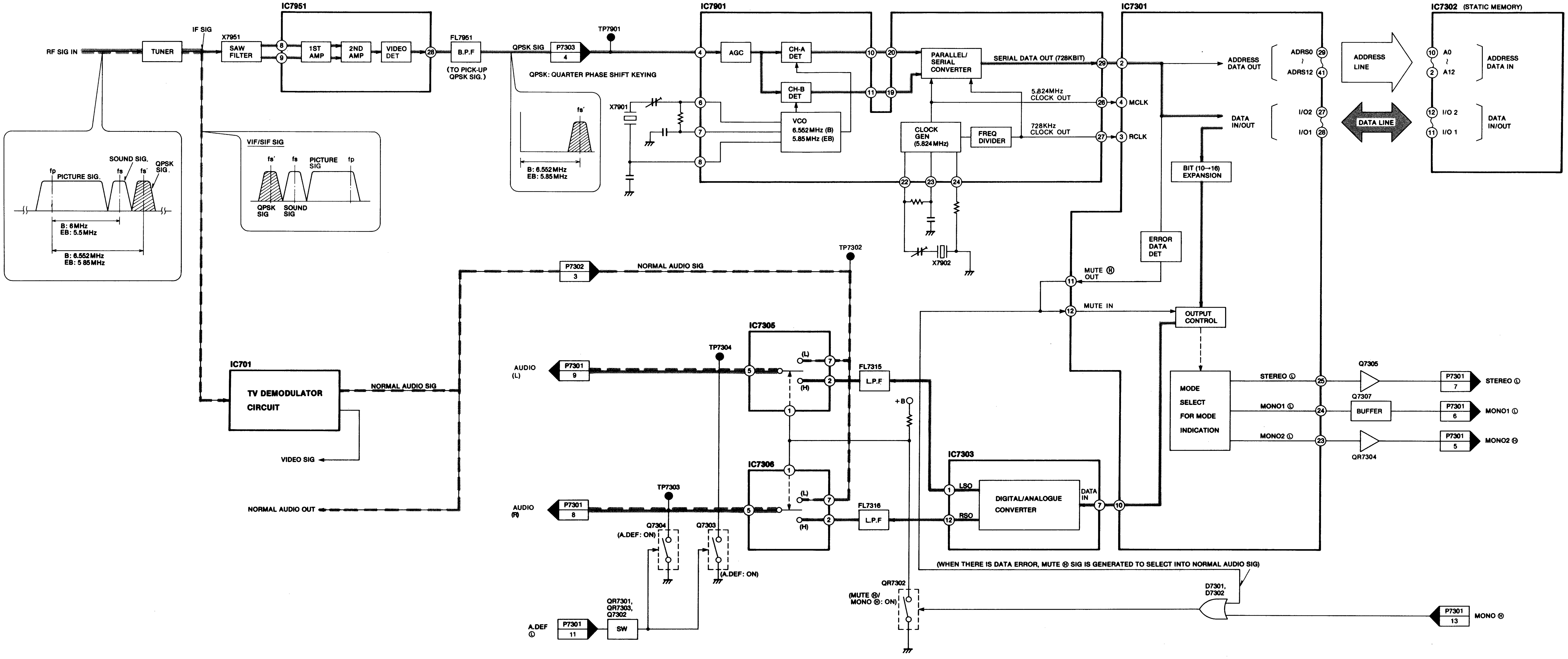

MPX Ⓗ
QR4501
MPX FILTER
FL4501
C4503~C4505
R4502~R4504
20KHz L.P.F
AGC DET
EVR
PACK 31
PACK 33
REC
P.B
+B
REC LEVEL
VR6503
VR C.B.A.
(VEP06533D:NV-F70B)
(VEP06533E:NV-F70EV)
20KHz L.P.F
C4553,C4555
R4551~R4553
MPX FILTER
QR4502
EE/VV CTL
EE Ⓗ
PACK 7
CCA
WEIGHTING
DET
ATT
EMPHASIS
R
P
AMP
HOLD1
HOLD2
AUDIO LIM
L.P.F
PHASE COMP.
FM LIM
VCO
FM LPF
LCH DEV
LCH FREQ
VR4502
VR4501
+5V
RCH DEV
RCH FREQ
VR4507
HOLD MM
H.SW SHIFT
D.O DET
VR4505
MUT LEV.
Q4504
BUFFER
1.4MHz B.P.F
1.8MHz B.P.F
FL4503
IC4501 (BA7700K1)
DEVIATION (100KHz)
1.4 MHz
1.8MHz
REC OUT
PACK 41
VR4503
REC CURR
VR4510
H.A.SW
H.SW SHIFT
PACK 1
A.H.SW
PACK 38
H.SW
PACK 2
RF IN
PACK 40
ENV. OUT
PACK 3
HI·FI AUDIO PACK C.B.A.
(VEP04242C)
CCA INPUT LEVEL (dB)
−80 −60 −40 −20 0
−20
−40
−60
−80
STANDARD LEVEL(0dB)
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL(dB)
NORMAL AUDIO CIRCUIT
AUDIO SECTION IN MAIN C.B.A.
(VEP03599D:NV-F70B)
(VEP03599C:NV-F70EV)
MIX
LINE AMP
MUT
OUTPUT MATRIX
DECODER
L CH AUDIO
R CH AUDIO
Q4502
Q4503
IC4501 (BA7700K1)
(OUTPUT SELECTOR)
PACK 9
NORMAL AUDIO
MODE SELECT Ⓛ
PACK 6
MIX Ⓗ
PACK 4
R CH Ⓛ
PACK 23
TO LEVEL METER
L CH Ⓛ
PACK 24
TO LEVEL METER
AUDIO MUT Ⓗ
PACK 8
FROM SYSTEM CONTROL
IC551 (BA7740FS)
P4002 2
P551 2
FM D.REC Ⓛ
P551 3
P4002 4
P551 4
P551 6
REC AMP
(P.B:ON)
RF PRE.AMP
20dB AMP
SW
P502 9
P502 8
P502 10
1.4MHz 1.8MHz
L AZIMUTH HEAD
R AZIMUTH HEAD
SMALL RF OUTPUT
PRE·AMP OUT
DISCONTINUOUS PHASE AT DC OFFSET PORTION
AUDIO H.SW (25Hz)
HEAD AMP C.B.A.
(VEP05134B)
H.SW (25Hz) IC4501-37
60°
AUDIO H.SW (25Hz) IC4501-35
TIMING OF H.SW AND AUDIO H.SW
AUDIO HEAD·R (36μm)
AUDIO HEAD·L (36μm)

MODE	28PIN
REC (HSL : ON)	H
REC (HSL : OFF)	M
PB	L

MODE	IC4501 - 72	AUDIO OUT			MODE DISPLAY	
		LINE:L	LINE:R	MIX	L	R
STEREO	SWITCH AT EVERY FALLING EDGE ST- L- R -N	HIFI:L	HIFI:R	HIFI:L+R	ON	ON
LEFT		HIFI:L	HIFI:L	HIFI:L	ON	OFF
RIGHT		HIFI:R	HIFI:R	HIFI:R	OFF	ON
NORMAL		NORMAL	NORMAL	NORMAL	OFF	OFF

3-5. NICAM DECODER BLOCK DIAGRAM (NV-F70B)

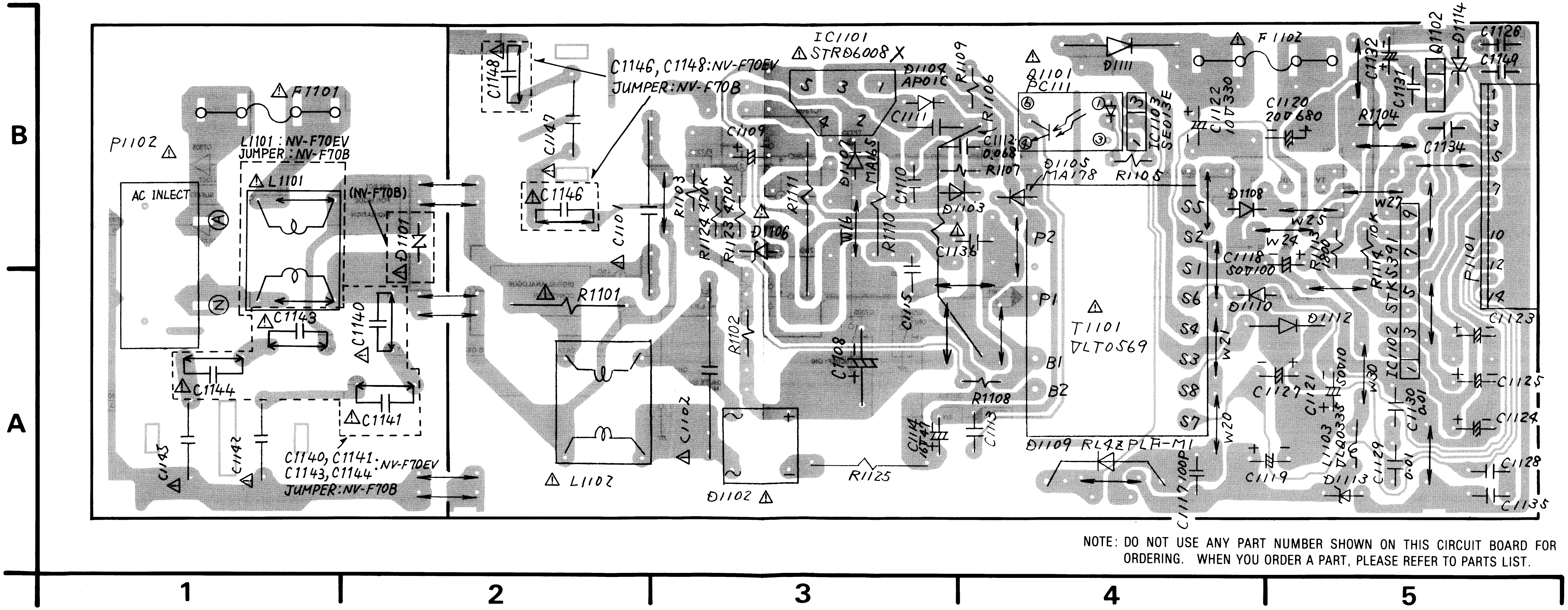
—— NICAM AUDIO SIGNAL PATH — — — NORMAL AUDIO SIGNAL PATH


RF SIG IN
TUNER
IF SIG
X7951
SAW FILTER
IC7951
1ST AMP
2ND AMP
VIDEO DET
FL7951
B.P.F
(TO PICK-UP QPSK SIG.)
QPSK SIG
P7303
4
TP7901
QPSK: QUARTER PHASE SHIFT KEYING
fs'
B: 6.552MHz
EB: 5.85MHz
X7901
IC7901
AGC
CH-A DET
CH-B DET
VCO
6.552MHz (B)
5.85MHz (EB)
PARALLEL/ SERIAL CONVERTER
SERIAL DATA OUT (728KBIT)
5.824MHz CLOCK OUT
728KHz CLOCK OUT
CLOCK GEN (5.824MHz)
FREQ DIVIDER
X7902
IC7301
MCLK
RCLK
ADDRESS DATA OUT
DATA IN/OUT
ADRS0
ADRS12
I/O2
I/O1
ADDRESS LINE
DATA LINE
IC7302 (STATIC MEMORY)
A0
A12
ADDRESS DATA IN
I/O 2
I/O 1
DATA IN/OUT
BIT (10→16) EXPANSION
ERROR DATA DET
MUTE Ⓗ OUT
MUTE IN
OUTPUT CONTROL
MODE SELECT FOR MODE INDICATION
STEREO Ⓛ
MONO1 Ⓛ
MONO2 Ⓛ
Q7305
Q7307
BUFFER
QR7304
P7301
7
STEREO Ⓛ
6
MONO1 Ⓛ
5
MONO2 Ⓗ
SOUND SIG.
QPSK SIG.
fp
PICTURE SIG.
fs
fs'
B: 6MHz
EB: 5.5MHz
B: 6.552MHz
EB: 5.85MHz
VIF/SIF SIG
PICTURE SIG
QPSK SIG
SOUND SIG
P7302
3
NORMAL AUDIO SIG
TP7302
IC701
TV DEMODULATOR CIRCUIT
NORMAL AUDIO SIG
VIDEO SIG
NORMAL AUDIO OUT
AUDIO (L)
P7301
9
TP7304
IC7305
(L)
(H)
FL7315
L.P.F
+B
AUDIO (R)
8
TP7303
IC7306
FL7316
L.P.F
IC7303
LSO
RSO
DIGITAL/ANALOGUE CONVERTER
DATA IN
Q7304
(A.DEF: ON)
Q7303
(A.DEF: ON)
QR7301, QR7303, Q7302
SW
A.DEF Ⓛ
P7301
11
(WHEN THERE IS DATA ERROR, MUTE Ⓗ SIG IS GENERATED TO SELECT INTO NORMAL AUDIO SIG)
QR7302
(MUTE Ⓗ/ MONO Ⓗ: ON)
D7301, D7302
P7301
13
MONO Ⓗ

3-6. POWER C.B.A. (VEP01353E: NV-F70B) (VEP01353D: NV-F70EV)

POWER C.B.A.	
Transistor	
Q1101	B-4
Q1102	B-5
Integrated Circuit	
IC1101	B-3
IC1102	A-5
IC1103	B-4
Connector	
P1101	B-5
P1102	B-1

ADDRESS INFORMATION

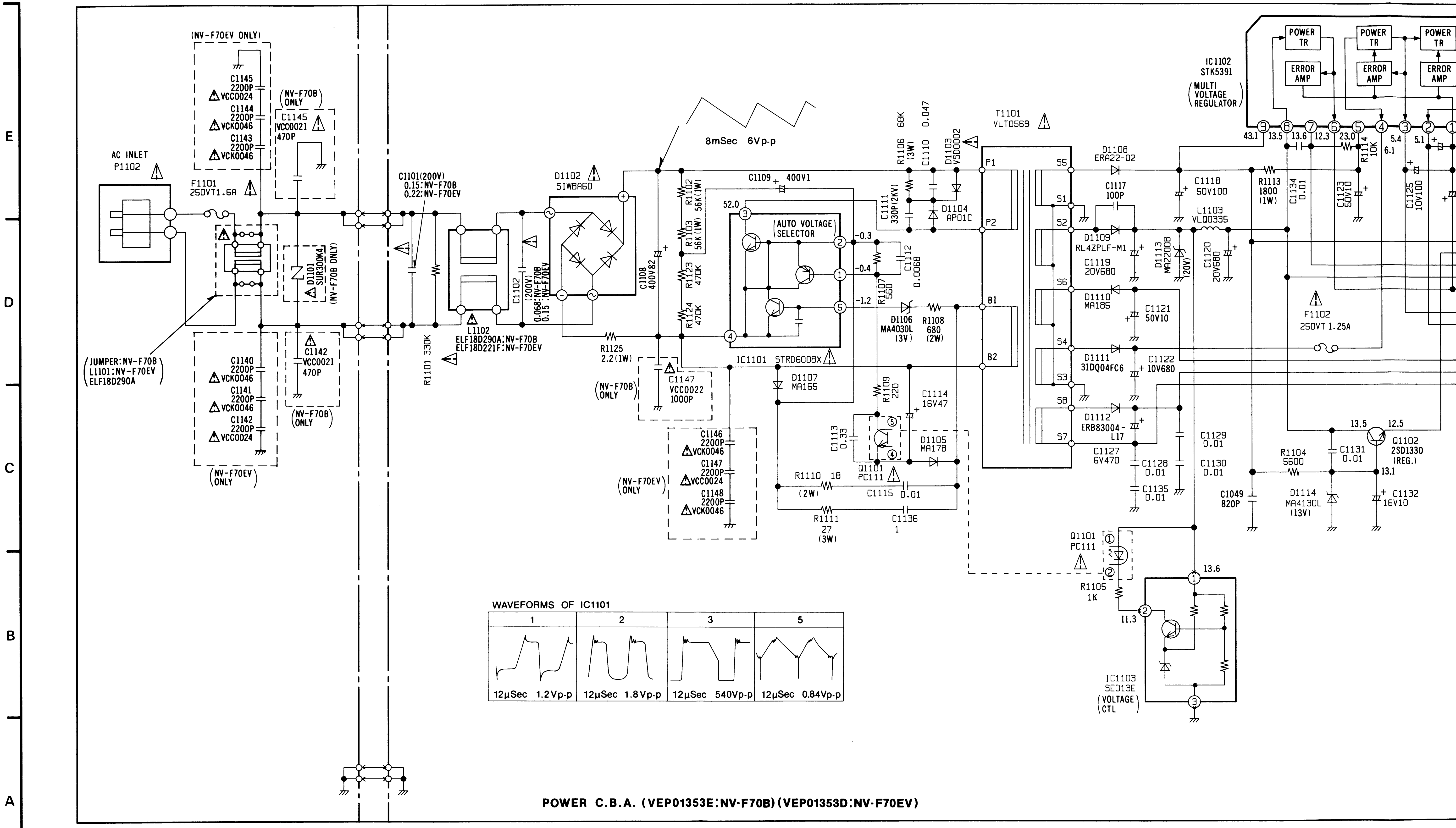


B
A
1
2
3
4
5
P1102 ⚠
⚠ F1101
L1101 : NV-F70EV
JUMPER : NV-F70B
⚠ L1101
(NV-F70B)
⚠ D1101
AC INLECT
Ⓐ
Ⓝ
⚠ C1143
⚠ C1140
⚠ C1144
⚠ C1141
C1145
C1142
C1140, C1141: NV-F70EV
C1143, C1144
JUMPER: NV-F70B
C1148
C1147
⚠ C1146
C1146, C1148: NV-F70EV
JUMPER: NV-F70B
C1101
⚠ R1101
⚠ L1102
⚠ C1102
D1102 ⚠
R1102
R1103
R1124 470K
R1123 470K
D1106
IC1101
⚠ STRD6008X
D1104
APO1C
R1109
R1106
C1109
C1111
R1111
D1107
MA165
W16
R1110
C1110
C1112
0.068
R1107
D1103
⚠ C1136
C1115
C1108
C1114
C1113
R1108
R1125
D1105
MA178
R1105
⚠ Q1101
PC111
IC1103
SE013E
⚠ D1111
C1122
10V330
C1120
20V680
⚠ F1102
C1132
C1131
Q1102
D1114
C1126
C1149
R1104
C1134
⚠ T1101
VLT0569
P2
P1
B1
B2
S5
S2
S1
S6
S4
S3
S8
S7
D1108
W25
W24
W27
C1118
50V100
R1112
R1114 10K
D1110
D1112
STK5391
IC1102
W21
W30
C1127
C1121
50V10
C1130 0.01
L1103
DLQ0335
C1129 0.01
C1119
D1113
W20
D1109 RL4ZPLA-M1
C1117 100P
P1101
C1123
C1125
C1124
C1128
C1135

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
NICAM DECODER Section

3-7. POWER SCHEMATIC DIAGRAM



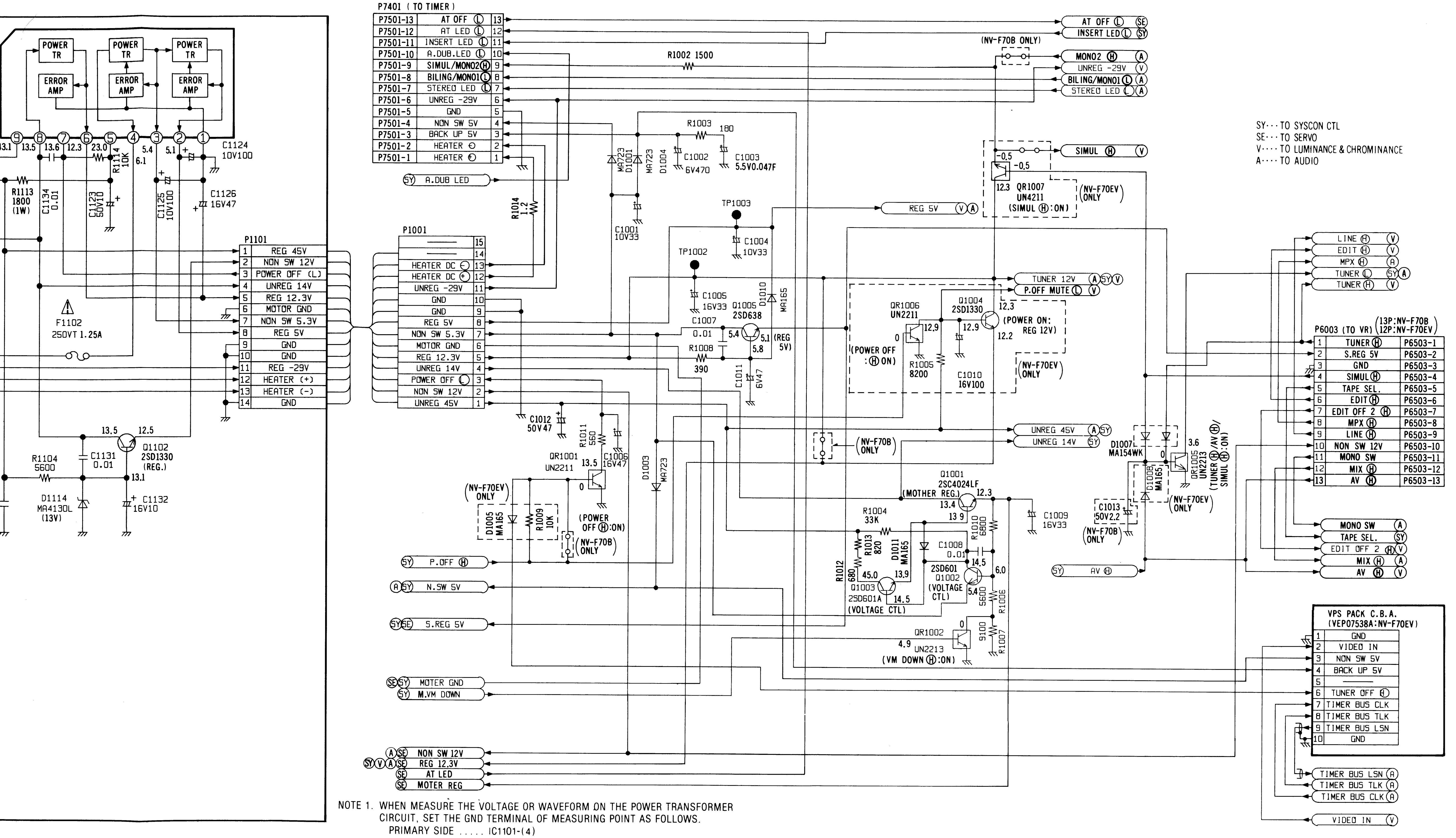
E
D
C
B
A
AC INLET
P1102
F1101
250VT1.6A
(NV-F70EV ONLY)
C1145
2200P
VCC0024
C1144
2200P
VCK0046
C1143
2200P
VCK0046
(NV-F70B ONLY)
C1145
VCC0021
470P
(JUMPER:NV-F70B
L1101:NV-F70EV
ELF18D290A)
D1101
SUR300K4
(NV-F70B ONLY)
C1140
2200P
VCK0046
C1141
2200P
VCK0046
C1142
2200P
VCC0024
(NV-F70EV ONLY)
C1142
VCC0021
470P
(NV-F70B ONLY)
C1101(200V)
0.15:NV-F70B
0.22:NV-F70EV
R1101 330K
L1102
ELF18D290A:NV-F70B
ELF18D221F:NV-F70EV
C1102
(200V)
0.068:NV-F70B
0.15:NV-F70EV
D1102
S1WBA60
8mSec 6Vp-p
C1108
400V82
R1125
2.2(1W)
(NV-F70B ONLY)
C1147
VCC0022
1000P
(NV-F70EV ONLY)
C1146
2200P
VCK0046
C1147
2200P
VCC0024
C1148
2200P
VCK0046
R1102 56K(1W)
R1103 56K(1W)
R1123 470K
R1124 470K
C1109 400V1
52.0
AUTO VOLTAGE SELECTOR
IC1101 STRD6008X
-0.3
-0.4
-1.2
C1112 0.0068
R1107 560
D1106
MA4030L
(3V)
R1108
680
(2W)
D1107
MA165
R1109 220
C1114
16V47
C1113 0.33
Q1101
PC111
D1105
MA178
R1110 18
(2W)
C1115 0.01
R1111
27
(3W)
C1136
1
R1106 68K (3W)
C1110 0.047
D1103 VSD0002
C1111 330P(2KV)
D1104
AP01C
T1101
VLT0569
P1
P2
B1
B2
S5
S1
S2
S6
S4
S3
S8
S7
D1108
ERA22-02
C1117
100P
D1109
RL4ZPLF-M1
C1119
20V680
D1110
MA185
C1121
50V10
D1111
31DQ04FC6
C1122
10V680
D1112
ERB83004-L17
C1127
6V470
C1128
0.01
C1135
0.01
C1129
0.01
C1130
0.01
C1118
50V100
L1103
VLQ0335
D1113
MA2200B
(20V)
C1120
20V680
F1102
250VT 1.25A
R1113
1800
(1W)
C1134
0.01
C1123
50V10
C1125
10V100
R1114
10K
IC1102
STK5391
(MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
43.1
13.5
13.6
12.3
23.0
5.4
6.1
5.1
Q1101
PC111
R1105
1K
11.3
13.6
IC1103
SE013E
(VOLTAGE CTL)
C1049
820P
R1104
5600
D1114
MA4130L
(13V)
C1131
0.01
13.5
12.5
Q1102
2SD1330
(REG.)
13.1
C1132
16V10
WAVEFORMS OF IC1101
1
2
3
5
12µSec 1.2Vp-p
12µSec 1.8Vp-p
12µSec 540Vp-p
12µSec 0.84Vp-p

POWER C.B.A. (VEP01353E:NV-F70B) (VEP01353D:NV-F70EV)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS S

1 2 3 4 5 6 7 8 9


P7401 (TO TIMER)
P7501-13 AT OFF Ⓛ 13
P7501-12 AT LED Ⓛ 12
P7501-11 INSERT LED Ⓛ 11
P7501-10 A.DUB.LED Ⓛ 10
P7501-9 SIMUL/MONO2Ⓗ 9
P7501-8 BILING/MONO1Ⓛ 8
P7501-7 STEREO LED Ⓛ 7
P7501-6 UNREG -29V 6
P7501-5 GND 5
P7501-4 NON SW 5V 4
P7501-3 BACK UP 5V 3
P7501-2 HEATER ⊖ 2
P7501-1 HEATER ⊕ 1
POWER TR
ERROR AMP
C1124 10V100
R1113 1800 (1W)
C1134 0.01
C1123 50V10
R1114 10K
C1125 10V100
C1126 16V47
F1102 250VT 1.25A
P1101
1 REG 45V
2 NON SW 12V
3 POWER OFF (L)
4 UNREG 14V
5 REG 12.3V
6 MOTOR GND
7 NON SW 5.3V
8 REG 5V
9 GND
10 GND
11 REG -29V
12 HEATER (+)
13 HEATER (-)
14 GND
Q1102 2SD1330 (REG.)
R1104 5600
C1131 0.01
D1114 MA4130L (13V)
C1132 16V10
P1001
15
14
HEATER DC ⊖ 13
HEATER DC ⊕ 12
UNREG -29V 11
GND 10
GND 9
REG 5V 8
NON SW 5.3V 7
MOTOR GND 6
REG 12.3V 5
UNREG 14V 4
POWER OFF Ⓛ 3
NON SW 12V 2
UNREG 45V 1
ⓈⓎ A.DUB LED
R1014 1.2
R1002 1500
R1003 180
MA723 D1001
MA723 D1004
C1002 6V470
C1003 5.5V0.047F
C1001 10V33
TP1003
C1004 10V33
TP1002
C1005 16V33
Q1005 2SD638
D1010 MA165
C1007 0.01
R1008 390
(REG 5V)
C1011 6V47
C1012 50V47
QR1001 UN2211
R1011 560
C1006 16V47
(POWER OFF Ⓗ:ON)
(NV-F70EV) ONLY
D1005 MA165
R1009 10K
(NV-F70B) ONLY
D1003 MA723
ⓈⓎ P.OFF Ⓗ
ⒶⓈⓎ N.SW 5V
ⓈⓎⓈⒺ S.REG 5V
ⓈⒺⓈⓎ MOTER GND
ⓈⓎ M.VM DOWN
ⒶⓈⒺ NON SW 12V
ⓈⓎⓋⒶⓈⒺ REG 12.3V
ⓈⒺ AT LED
ⓈⒺ MOTER REG
(NV-F70B ONLY)
AT OFF Ⓛ ⓈⒺ
INSERT LED Ⓛ ⓈⓎ
MONO2 Ⓗ Ⓐ
UNREG -29V Ⓥ
BILING/MONO1 Ⓛ Ⓐ
STEREO LED Ⓛ Ⓐ
SIMUL Ⓗ Ⓥ
QR1007 UN4211 (SIMUL Ⓗ:ON)
(NV-F70EV) ONLY
REG 5V ⓋⒶ
TUNER 12V ⒶⓈⓎⓋ
P.OFF MUTE Ⓛ Ⓥ
QR1006 UN2211
Q1004 2SD1330
(POWER ON: REG 12V)
(POWER OFF :Ⓗ ON)
R1005 8200
C1010 16V100
UNREG 45V ⒶⓈⓎ
UNREG 14V ⓈⓎ
Q1001 2SC4024LF (MOTHER REG.)
C1009 16V33
R1004 33K
R1010 6800
R1013 820
D1011 MA165
C1008 0.01
R1012 680
Q1003 2SD601A (VOLTAGE CTL)
2SD601 Q1002 (VOLTAGE CTL)
R1006 5600
QR1002 UN2213 (VM DOWN Ⓗ:ON)
R1007 9100
LINE Ⓗ Ⓥ
EDIT Ⓗ Ⓥ
MPX Ⓗ Ⓐ
TUNER Ⓛ ⓈⓎⒶ
TUNER Ⓗ Ⓥ
P6003 (TO VR) (13P:NV-F70B) (12P:NV-F70EV)
1 TUNER Ⓗ P6503-1
2 S.REG 5V P6503-2
3 GND P6503-3
4 SIMUL Ⓗ P6503-4
5 TAPE SEL. P6503-5
6 EDIT Ⓗ P6503-6
7 EDIT OFF 2 Ⓗ P6503-7
8 MPX Ⓗ P6503-8
9 LINE Ⓗ P6503-9
10 NON SW 12V P6503-10
11 MONO SW P6503-11
12 MIX Ⓗ P6503-12
13 AV Ⓗ P6503-13
D1007 MA154WK
D1008 MA165
QR1005 UN2213 (TUNER Ⓗ/AV Ⓗ/ SIMUL Ⓗ:ON)
(NV-F70EV) ONLY
C1013 50V2.2
(NV-F70B) ONLY
ⓈⓎ AV Ⓗ
MONO SW Ⓐ
TAPE SEL. ⓈⓎ
EDIT OFF 2 ⒽⓋ
MIX Ⓗ Ⓐ
AV Ⓗ Ⓥ
VPS PACK C.B.A. (VEP07538A:NV-F70EV)
1 GND
2 VIDEO IN
3 NON SW 5V
4 BACK UP 5V
5 ———
6 TUNER OFF Ⓗ
7 TIMER BUS CLK
8 TIMER BUS TLK
9 TIMER BUS LSN
10 GND
TIMER BUS LSN Ⓐ
TIMER BUS TLK Ⓐ
TIMER BUS CLK Ⓐ
VIDEO IN Ⓥ
8
9
10
11
12
13
14
15
16

SY···TO SYSCON CTL
SE···TO SERVO
V····TO LUMINANCE & CHROMINANCE
A····TO AUDIO

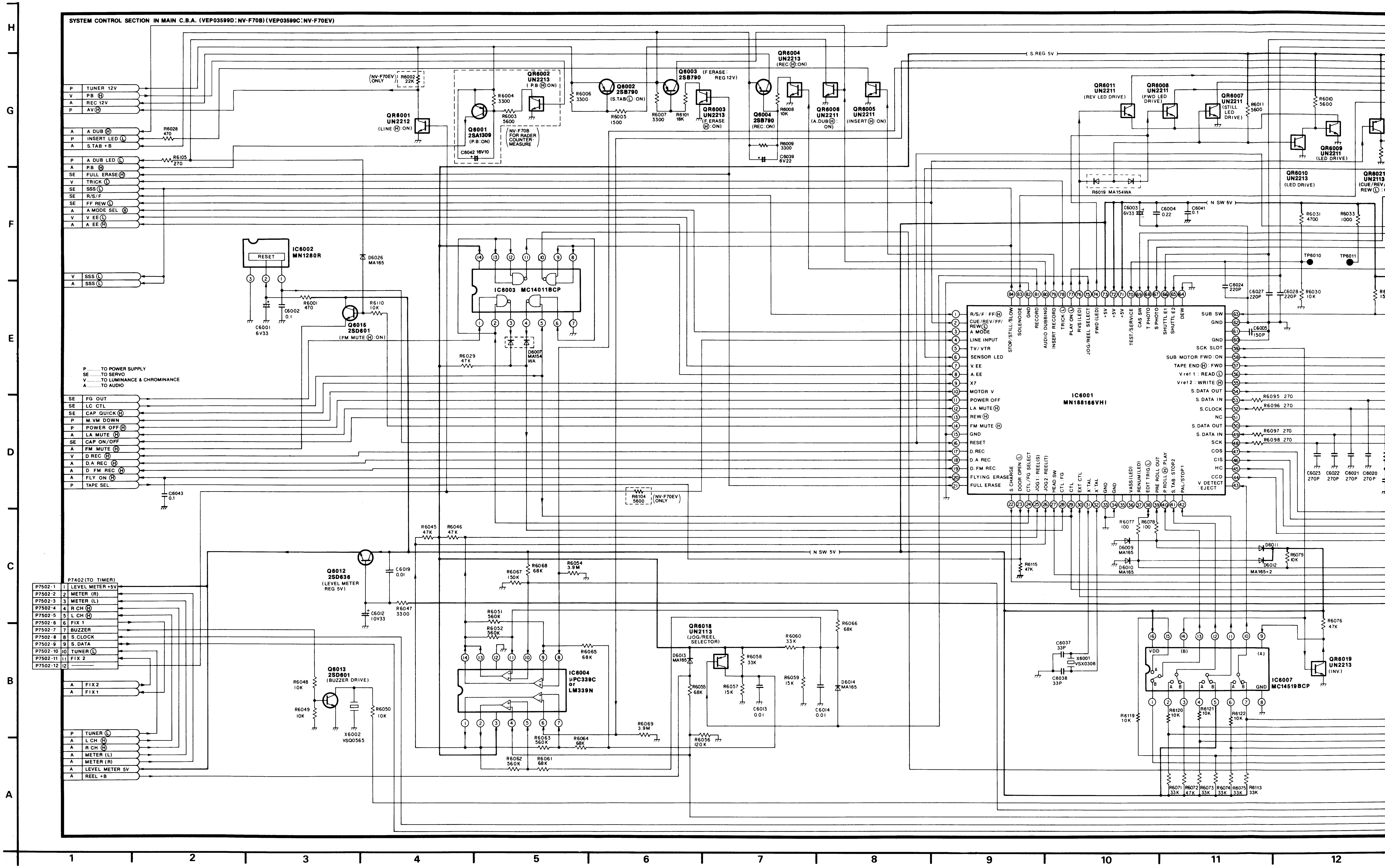
DE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER
CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

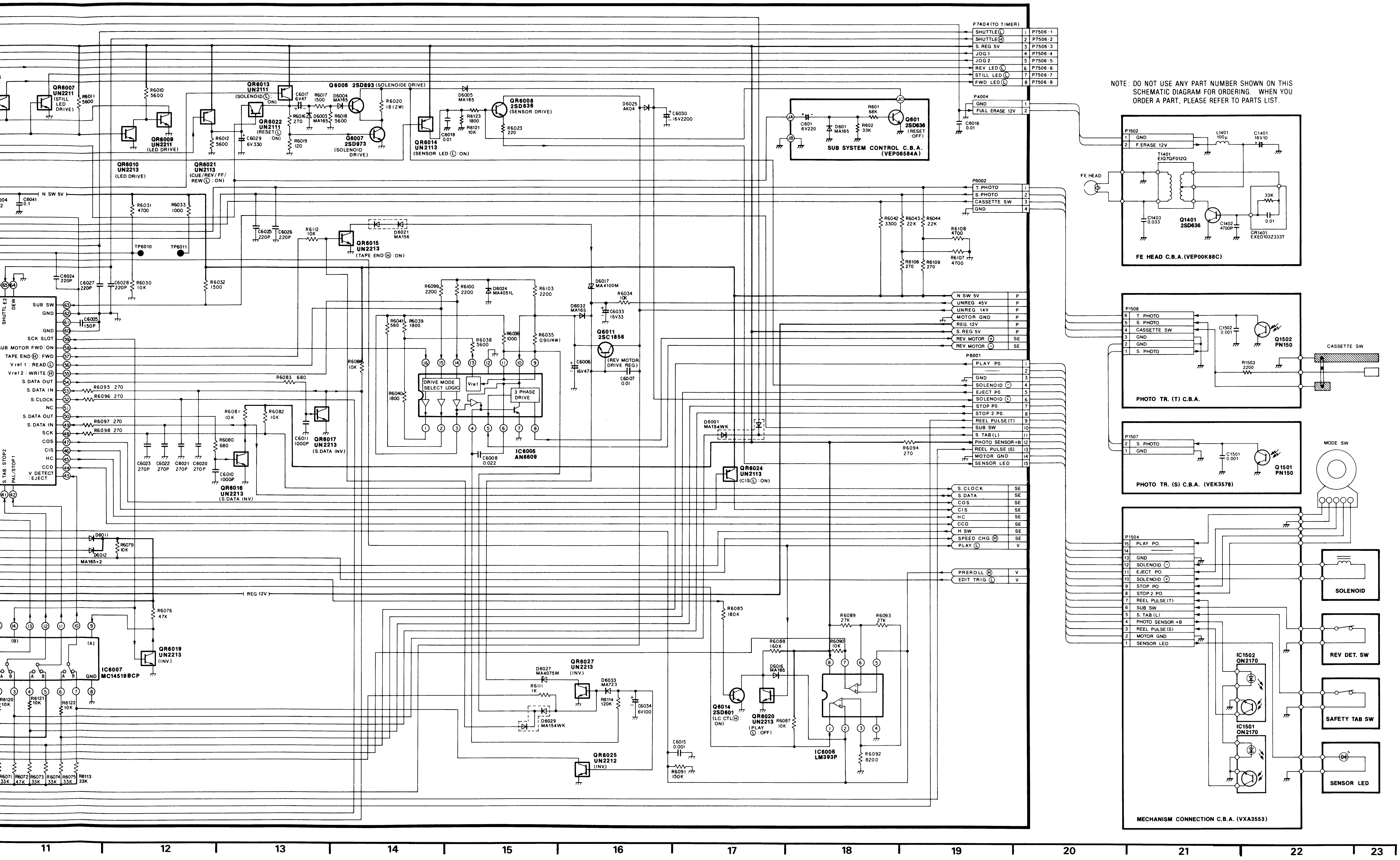
NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN
INPUT AC IS 220V.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-8. SYSTEM CONTROL SCHEMATIC DIAGRAM


SYSTEM CONTROL SECTION IN MAIN C.B.A. (VEP03599D : NV-F70B) (VEP03599C : NV-F70EV)
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
TUNER 12V
PB Ⓗ
REC 12V
AV Ⓗ
A DUB Ⓗ
INSERT LED Ⓛ
S.TAB +B
A DUB LED Ⓛ
P.B Ⓗ
FULL ERASE Ⓗ
TRICK Ⓛ
SSS Ⓛ
R/S/F
FF REW Ⓛ
A MODE SEL Ⓗ
V EE Ⓛ
A EE Ⓗ
SSS Ⓛ
P ......TO POWER SUPPLY
SE ......TO SERVO
V ......TO LUMINANCE & CHROMINANCE
A ......TO AUDIO
FG OUT
LC CTL
CAP QUICK Ⓗ
M.VM DOWN
POWER OFF Ⓗ
LA MUTE Ⓗ
CAP ON/OFF
FM MUTE Ⓗ
D.REC Ⓗ
D.A REC Ⓗ
D FM REC Ⓗ
FLY ON Ⓗ
TAPE SEL.
P7402 (TO TIMER)
LEVEL METER +5V
METER (R)
METER (L)
R CH Ⓗ
L CH Ⓗ
FIX 1
BUZZER
S.CLOCK
S.DATA
TUNER Ⓛ
FIX 2
FIX 2
FIX 1
TUNER Ⓛ
L CH Ⓗ
R CH Ⓗ
METER (L)
METER (R)
LEVEL METER 5V
REEL +B
IC6002 MN1280R
RESET
Q6015 2SD601 (FM MUTE Ⓗ : ON)
QR6001 UN2212 (LINE Ⓗ : ON)
Q6001 2SA1309 (P.B : ON)
QR6002 UN2213 (P.B Ⓗ ON)
NV-F70B FOR RADER COUNTER MEASURE
Q6002 2SB790 (S.TAB Ⓛ : ON)
Q6003 2SB790 (F ERASE : REG 12V)
QR6003 UN2213 (F.ERASE Ⓗ : ON)
Q6004 2SB790 (REC : ON)
QR6004 UN2213 (REC Ⓗ : ON)
QR6006 UN2211 (A.DUB Ⓗ : ON)
QR6005 UN2211 (INSERT Ⓗ : ON)
S.REG 5V
QR6011 UN2211 (REV LED DRIVE)
QR6008 UN2211 (FWD LED DRIVE)
QR6007 UN2211 (STILL LED DRIVE)
QR6009 UN2211 (LED DRIVE)
QR6010 UN2213 (LED DRIVE)
R6019 MA154WA
N SW 5V
IC6003 MC14011BCP
D6007 MA154 WA
IC6001 MN188166VHI
R/S/F : FF Ⓗ
CUE/REV/FF/REW Ⓛ
A. MODE
LINE INPUT
TV/VTR
SENSOR LED
V. EE
A. EE
X7
MOTOR V
POWER OFF
LA MUTE Ⓗ
REW Ⓗ
FM MUTE Ⓗ
GND
RESET
D. REC
D.A REC
D. FM REC
FLYING ERASE
FULL ERASE
SUB SW
GND
GND
SCK SLOT
SUB MOTOR FWD : ON
TAPE END Ⓗ : FWD
Vref 1 : READ Ⓛ
Vref 2 : WRITE Ⓗ
S.DATA OUT
S.DATA IN
S.CLOCK
NC
S.DATA OUT
S.DATA IN
SCK
COS
CIS
HC
CCD
V DETECT EJECT
STOP/STILL/SLOW
SOLENOIDE
GND
RECORD
AUDIO DUBBING
INSERT RECORD
TRICK Ⓛ
PLAY ON Ⓛ
RVS (LED)
JOG/REEL SELECT
FWD (LED)
+5V
TEST/SERVICE
CAS SW
T PHOTO
S PHOTO
SHUTTLE 1
SHUTTLE 2
DEW
S. CHARGE
DOOR OPEN Ⓛ
CTL /FG SELECT
JOG 1 : REEL(S)
JOG 2 : REEL(T)
HEAD SW
CTL
EXT. CTL
X TAL
GND
VASS (LED)
RENUM (LED)
EDIT TRIG Ⓛ
PRE ROLL OUT
P ROLL Ⓗ : PLAY
S.TAB : STOP 2
PAL/STOP 1
Q6012 2SD636 (LEVEL METER REG 5V)
Q6013 2SD601 (BUZZER DRIVE)
X6002 VSQ0365
IC6004 μPC339C or LM339N
QR6018 UN2113 (JOG/REEL SELECTOR)
X6001 VSX0306
IC6007 MC14519BCP
VDD
GND
QR6019 UN2213 (INV.)
D6009 MA165
D6010 MA165
D6011
D6012
MA165×2
D6013 MA165
D6014 MA165
D6026 MA165

Back Page:
POWER Section


P7404 (TO TIMER)
SHUTTLE Ⓛ
SHUTTLE Ⓗ
S. REG 5V
JOG 1
JOG 2
REV LED Ⓛ
STILL LED Ⓛ
FWD LED Ⓛ
P7506-1
P7506-2
P7506-3
P7506-4
P7506-5
P7506-6
P7506-7
P7506-8
P4004
GND
FULL ERASE 12V
C6016 0.01
QR6007 UN2211 (STILL LED DRIVE)
R6011 5600
R6010 5600
QR6009 UN2211 (LED DRIVE)
QR6010 UN2213 (LED DRIVE)
QR6013 UN2111 (SOLENOID Ⓛ : ON)
QR6022 UN2111 (RESET Ⓛ : ON)
R6012 5600
C6029 6V330
QR6021 UN2113 (CUE/REV/FF/REW Ⓛ : ON)
C6017 6V47
R6017 1500
D6004 MA165
R6016 270
D6003 MA165
R6018 5600
R6019 120
Q6006 2SD893 (SOLENOIDE DRIVE)
R6020 18 (2W)
Q6007 2SD973 (SOLENOID DRIVE)
QR6014 UN2113 (SENSOR LED Ⓛ : ON)
C6018 0.01
D6005 MA165
R6123 1800
R6121 10K
QR6008 2SD636 (SENSOR DRIVE)
R6023 220
D6025 AK04
C6030 16V2200
SUB SYSTEM CONTROL C.B.A. (VEP06584A)
C601 6V220
D601 MA165
R601 68K
R602 33K
Q601 2SD636 (RESET : OFF)
JA
JB
JC
N SW 5V
C6041 0.1
R6031 4700
R6033 1000
TP6010
TP6011
C6025 220P
C6026 220P
R6112 10K
QR6015 UN2213 (TAPE END Ⓗ : ON)
D6021 MA156
C6024 220P
C6027 220P
C6028 220P
R6030 10K
R6032 1500
SUB SW
GND
SCK SLOT
SUB MOTOR FWD : ON
TAPE END Ⓗ : FWD
Vref 1 : READ Ⓛ
Vref 2 : WRITE Ⓗ
S. DATA OUT
S. DATA IN
S. CLOCK
NC
SCK
COS
CIS
HC
CCD
V DETECT : EJECT
SHUTTLE E2
DEW
S. TAB : STOP2
PAL/STOP1
C6005 150P
R6095 270
R6096 270
R6097 270
R6098 270
R6099 2200
R6100 2200
D6024 MA4051L
R6103 2200
R6041 560
R6039 1800
R6038 5600
R6036 1000
R6035 0.911 (4W)
R6040 1800
DRIVE MODE SELECT LOGIC
Vref
3 PHASE DRIVE
C6008 0.022
IC6005 AN6609
R6084 10K
R6083 680
R6081 10K
R6082 10K
QR6017 UN2213 (S.DATA INV.)
C6011 1000P
R6080 680
C6010 1000P
QR6016 UN2213 (S.DATA INV.)
C6023 270P
C6022 270P
C6021 270P
C6020 270P
D6017 MA4100M
D6032 MA165
R6034 10K
C6033 16V33
Q6011 2SC1856 (REV MOTOR DRIVE REG)
C6006 16V47
C6007 0.01
R6042 3300
R6043 22K
R6044 22K
R6108 4700
R6107 4700
R6106 270
R6109 270
P6002
T. PHOTO
S. PHOTO
CASSETTE SW
N SW 5V
UNREG 45V
UNREG 14V
MOTOR GND
REG 12V
S. REG 5V
REV. MOTOR ⊕
REV. MOTOR ⊖
P6001
PLAY PO.
SOLENOID ⊖
EJECT PO.
SOLENOID ⊕
STOP PO.
STOP 2 PO.
REEL PULSE (T)
S. TAB (L)
PHOTO SENSOR +B
REEL PULSE (S)
SENSOR LED
D6001 MA154WK
R6094 270
QR6024 UN2113 (CIS Ⓛ : ON)
S. CLOCK
S. DATA
COS
CIS
HC
CCD
H SW
SPEED CHG Ⓗ
PLAY Ⓛ
PREROLL Ⓗ
EDIT TRIG Ⓛ
SE
P
V
D6011
D6012
MA165×2
R6079 10K
REG.12V
R6076 47K
QR6019 UN2213 (INV.)
IC6007 MC14519BCP
R6120 10K
R6121 10K
R6122 10K
R6071 33K
R6072 47K
R6073 33K
R6074 33K
R6075 33K
R6113 33K
D6027 MA4075M
R6111 1K
QR6027 UN2213 (INV.)
D6033 MA723
R6114 120K
C6034 6V100
D6029 MA154WK
QR6025 UN2212 (INV.)
R6085 180K
R6089 27K
R6093 27K
R6088 160K
R6090 10K
D6016 MA165
Q6014 2SD601 (LC CTL Ⓗ : ON)
QR6020 UN2213 (PLAY Ⓛ : OFF)
R6087 10K
IC6006 LM393P
R6092 8200
C6015 0.001
R6091 150K
P1502
GND
F.ERASE 12V
L1401 100μ
C1401 16V10
T1401 EIQ7QF012Q
FE HEAD
C1403 0.033
Q1401 2SD636
C1402 4700P
33K
0.01
CR1401 EXED103Z333T
FE HEAD C.B.A. (VEP00K88C)
P1508
T. PHOTO
S. PHOTO
CASSETTE SW
GND
S. PHOTO
C1502 0.001
Q1502 PN150
R1503 2200
CASSETTE SW
PHOTO TR. (T) C.B.A.
P1507
S. PHOTO
GND
C1501 0.001
Q1501 PN150
PHOTO TR. (S) C.B.A. (VEK3578)
MODE SW
P1504
PLAY PO.
GND
SOLENOID ⊖
EJECT PO.
SOLENOID ⊕
STOP PO.
STOP 2 PO.
REEL PULSE (T)
SUB SW
S. TAB (L)
PHOTO SENSOR +B
REEL PULSE (S)
MOTOR GND
SENSOR LED
IC1502 ON2170
IC1501 ON2170
SOLENOID
REV DET. SW
SAFETY TAB SW
SENSOR LED
MECHANISM CONNECTION C.B.A. (VXA3553)
11
12
13
14
15
16
17
18
19
20
21
22
23

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

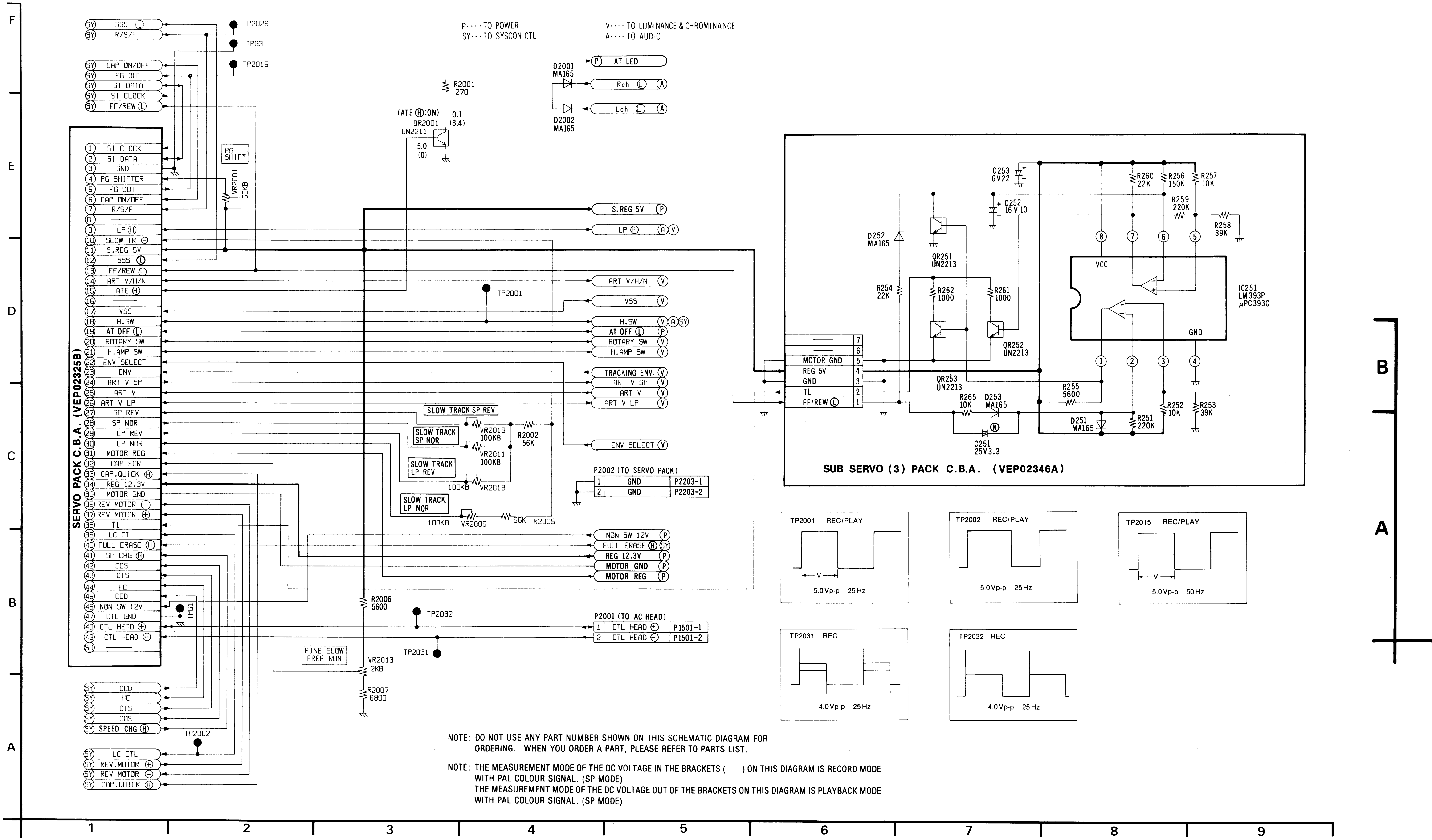
SYSTEM CONTROL ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.1	4.9	0	4.9	0	4.4	0.4	4.9	0	4.9	0	0	0	0	0	4.6	0	0	0	0
PLAY	0	4.9	0	4.9	0	4.4	4.9	0	0	0	0	0	4.9	0	0	4.5	0	0	0	0
FF	0	0	0	4.9	0	4.4	0.3	4.9	0	4.9	0	0	4.9	0	0	4.9	0	0	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	0	0	4.8	0	5.1	0.1	5.1	2.6	—	0	0	4.9	0	0	4.9	0	1.3
PLAY	0	0	0	0	4.9	4.9	2.5	2.2	2.7	3.1	2.7	—	0	0	4.9	0	0	4.9	1.1	0
FF	0	0	0	0	2.9	2.8	0	2.1	2.5	5.1	2.6	—	0	0	4.9	0	0	4.9	0	1.3
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.3	4.0	4.9	4.9	4.9	4.9	4.9	5.0	0.4	0.2	0	4.6	4.3	0.5	4.9	4.9	4.9	0	3.9	0
PLAY	1.1	4.9	4.9	4.9	4.9	4.9	4.9	5.0	0.4	0.4	0	4.6	4.2	0.6	4.9	4.9	4.9	0	3.8	0
FF	1.3	4.0	4.9	4.9	4.9	4.9	4.9	5.0	0.4	0.3	0	4.6	4.3	0.5	4.9	4.9	4.9	0	3.9	0
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.4	0	0	0	0.1	0.1	4.4	4.4	2.0	3.6	4.9	4.9	4.9	0	0	0	4.9	4.9	0	0
PLAY	3.2	0	0	0	0	0.1	4.4	4.4	2.0	3.3	4.9	4.9	4.9	0	0	0	0	4.9	0	0
FF	3.2	0	0	0	0.1	0.1	4.4	4.4	2.0	3.6	4.9	4.9	4.9	0	0	0	4.9	4.9	0	0
REF. NO.	IC6001										IC6002									
MODE	81	82	83	84							1	2	3							
STOP	0	0	4.9	4.9							4.5	4.8	0							
PLAY	0	0	4.9	4.9							4.5	4.8	0							
FF	0	0	4.9	4.9							4.9	4.9	0							
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	5.1	0	5.1	5.1	0.1	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
PLAY	2.7	0	5.1	2.0	2.6	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
FF	2.5	0	5.1	2.1	2.6	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.9	4.9	5.1	0.1	2.0	0.1	5.0	0.1	5.0	0.1	2.0	0	4.8	4.8						
PLAY	4.9	4.9	5.1	3.3	1.7	0.1	4.6	0.1	4.7	3.0	1.8	0	4.9	4.8						
FF	2.9	2.9	5.1	1.2	1.8	0.1	4.8	0.1	4.8	0.4	1.8	0	2.7	2.7						
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	9.8	10.1	10.1	0.6	8.0	8.4	0	8.0	10.3	10.3	10.3	0	9.0	4.9	4.9	4.9				
PLAY	9.9	10.1	10.1	1.2	8.0	8.0	0	8.0	10.3	10.3	10.3	0	9.0	4.9	4.9	0				
FF	9.8	10.1	10.1	1.2	8.0	8.0	0	8.0	10.3	10.3	10.3	0	9.0	4.9	4.9	0				
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8												
STOP	5.1	0.1	0.7	0	0	0	0.1	5.1												
PLAY	2.9	1.0	0.7	0	1.0	2.9	0.1	5.1												
FF	5.1	0	0.7	0	0	2.9	0.1	5.1												
REF. NO.	IC6007																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0.2	4.9	0.5	0	4.9	4.9	4.9	0	1.3	4.3	4.0	1.3	1.0	4.0	4.9	4.9				
PLAY	0.2	4.9	0.5	4.9	4.9	4.9	4.9	0	1.0	4.9	4.9	1.1	0	3.8	0	4.9				
FF	0.2	4.9	0.5	0	4.9	4.9	4.9	0	1.0	4.9	3.9	1.0	1.0	4.0	4.9	4.9				

SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q601																	
MODE	E	C	B															
STOP	0	0.4	0															
PLAY	0	0.5	0															
FF	0	0.5	0.1															
REF. NO.	Q6001			Q6002			Q6003			Q6004			Q6006			Q6007		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	0	12.2	12.3	12.3	11.5	12.3	0.3	12.3	12.3	0	12.3	13.5	13.5	4.9	0	13.5	0
PLAY	12.2	0	12.2	12.3	12.3	11.5	12.3	0.3	12.3	12.3	0.1	12.3	13.4	13.4	4.9	0	13.4	0
FF	12.2	0	12.2	12.3	12.3	11.6	12.3	0.5	12.3	12.3	0.1	12.3	13.5	13.5	4.8	0	13.4	0
REF. NO.	Q6008			Q6011			Q6012			Q6013			Q6014			Q6015		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.7	13.5	0.6	10.3	13.5	11.6	4.9	4.9	5.6	0	0	0.7	0	0	0.1	0	4.9	0
PLAY	0.6	13.4	0.5	10.3	13.4	11.6	4.9	4.9	5.6	0	0	0.7	0	0.9	0.4	0	4.9	0
FF	0.8	13.5	0.5	10.3	13.5	11.6	4.9	4.9	5.6	0	0	0.7	0	0	0.5	0	4.9	0
REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6005			QR6006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.1	0	12.2	0	0	12.3	0	0	12.3	0	0	3.3	0	0	3.4	0
PLAY	0	0	4.1	0	12.2	0	0	12.3	0	0	12.3	0	0	3.5	0	0	3.4	0
FF	0	0	4.1	0	12.2	0	0	12.3	0	0	12.2	0	0	3.3	0	0	3.4	0
REF. NO.	QR6007			QR6008			QR6009			QR6010			QR6011			QR6013		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0.6	0.6	0	0.3	0	0	0	3.4	0	3.4	0.6	0	0.9	0	5.1	0	4.9
PLAY	0	0.2	0.6	0	0.1	0	0	0	3.4	0	3.4	0.6	0	0.1	0	5.1	0	4.9
FF	0	0.2	0.6	0	0	0	0	0	3.4	0	3.4	0.6	0	0.1	0	5.1	0	4.9
REF. NO.	QR6014			QR6015			QR6016			QR6017			QR6018			QR6019		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	1.0	4.4	0	0.1	4.1	0	0.4	0.2	0	4.3	0.4	5.1	5.1	0	0	0.9	4.0
PLAY	5.1	0.5	4.4	0	0.1	4.1	0	0.4	0.2	0	4.2	0.5	5.1	5.1	0	0	1.0	3.8
FF	5.1	0.6	4.4	0	0.1	4.1	0	0.4	0.2	0	4.3	0.4	5.1	5.1	0	0	1.2	1.2
REF. NO.	QR6020			QR6021			QR6022			QR6024			QR6025			QR6026		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.9	5.1	1.0	4.9	1.0	0	4.5	4.9	0	4.9	0	4.9	0.1	0	4.4	0
PLAY	0	1.3	0	5.1	1.0	4.9	1.0	0	4.5	4.9	0	4.9	0	4.9	0.1	0	4.4	0
FF	0	0	4.9	5.1	5.1	0	5.1	0	4.9	4.9	0	4.9	0	4.9	0.1	0	4.4	0

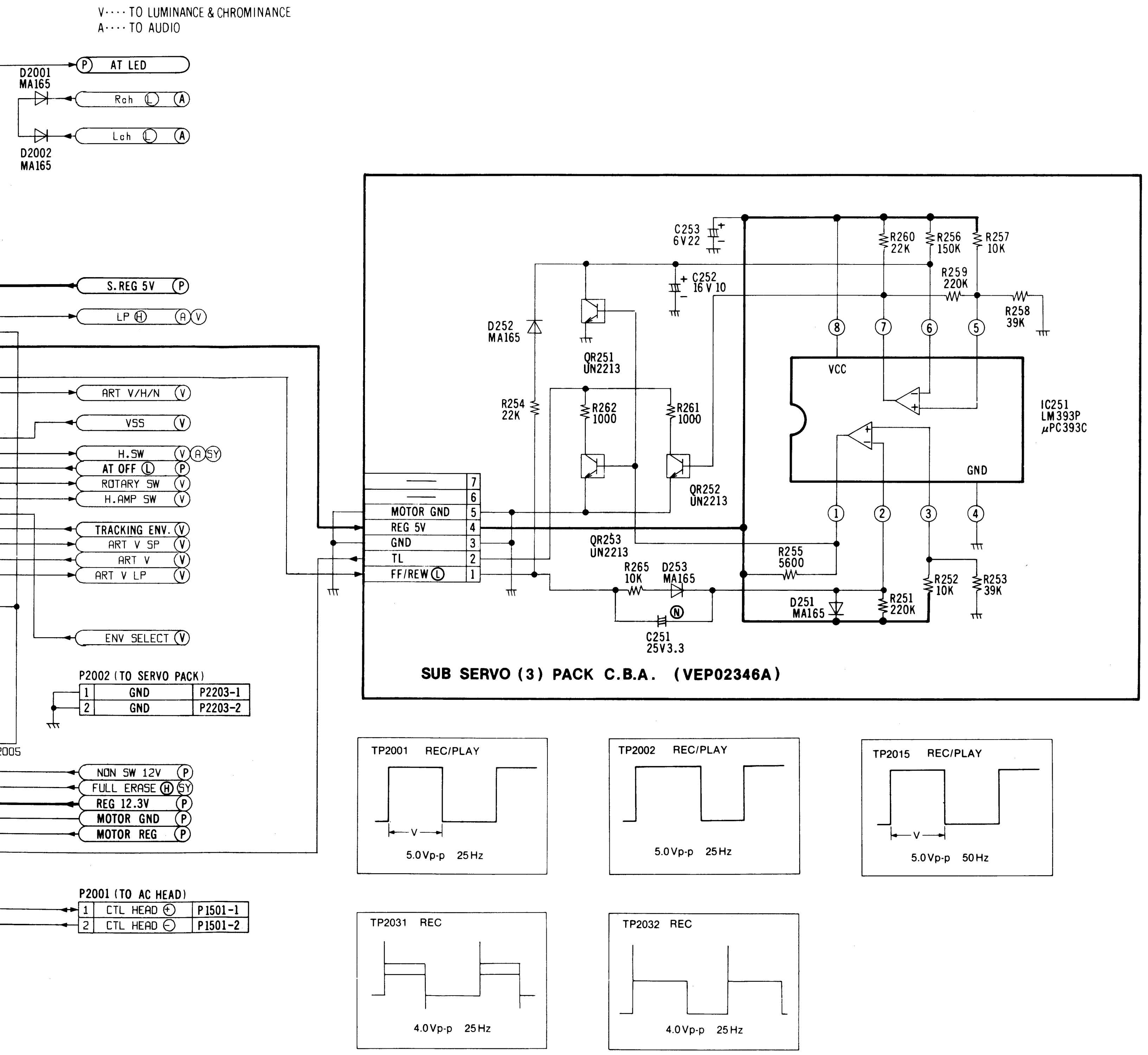
3-9. SERVO SCHEMATIC DIAGRAM


P····TO POWER
SY···TO SYSCON CTL
V····TO LUMINANCE & CHROMINANCE
A····TO AUDIO
SERVO PACK C.B.A. (VEP02325B)
1 SI CLOCK
2 SI DATA
3 GND
4 PG SHIFTER
5 FG OUT
6 CAP ON/OFF
7 R/S/F
9 LP Ⓗ
10 SLOW TR ⊖
11 S.REG 5V
12 SSS Ⓛ
13 FF/REW Ⓛ
14 ART V/H/N
15 ATE Ⓗ
17 VSS
18 H.SW
19 AT OFF Ⓛ
20 ROTARY SW
21 H.AMP SW
22 ENV SELECT
23 ENV
24 ART V SP
25 ART V
26 ART V LP
27 SP REV
28 SP NOR
29 LP REV
30 LP NOR
31 MOTOR REG
32 CAP ECR
33 CAP.QUICK Ⓗ
34 REG 12.3V
35 MOTOR GND
36 REV MOTOR ⊖
37 REV MOTOR ⊕
38 TL
39 LC CTL
40 FULL ERASE Ⓗ
41 SP CHG Ⓗ
42 COS
43 CIS
44 HC
45 CCD
46 NON SW 12V
47 CTL GND
48 CTL HEAD ⊕
49 CTL HEAD ⊖
SY SSS Ⓛ
SY R/S/F
SY CAP ON/OFF
SY FG OUT
SY SI DATA
SY SI CLOCK
SY FF/REW Ⓛ
TP2026
TPG3
TP2015
PG SHIFT
VR2001 50KB
TP2001
TP2002
TP2031
TP2032
TPG1
R2001 270
(ATE Ⓗ:ON)
QR2001 UN2211
0.1 (3.4)
5.0 (0)
D2001 MA165
D2002 MA165
P AT LED
Rch Ⓛ A
Lch Ⓛ A
S.REG 5V P
LP Ⓗ A V
ART V/H/N V
VSS V
H.SW V A SY
AT OFF Ⓛ P
ROTARY SW V
H.AMP SW V
TRACKING ENV. V
ART V SP V
ART V V
ART V LP V
ENV SELECT V
SLOW TRACK SP REV
SLOW TRACK SP NOR
SLOW TRACK LP REV
SLOW TRACK LP NOR
VR2019 100KB
VR2011 100KB
VR2018 100KB
VR2006 100KB
R2002 56K
R2005 56K
P2002 (TO SERVO PACK)
1 GND P2203-1
2 GND P2203-2
NON SW 12V P
FULL ERASE Ⓗ SY
REG 12.3V P
MOTOR GND P
MOTOR REG P
R2006 5600
FINE SLOW FREE RUN
VR2013 2KB
R2007 6800
P2001 (TO AC HEAD)
1 CTL HEAD ⊕ P1501-1
2 CTL HEAD ⊖ P1501-2
SY CCD
SY HC
SY CIS
SY COS
SY SPEED CHG Ⓗ
SY LC CTL
SY REV.MOTOR ⊕
SY REV MOTOR ⊖
SY CAP.QUICK Ⓗ
SUB SERVO (3) PACK C.B.A. (VEP02346A)
7
6
5 MOTOR GND
4 REG 5V
3 GND
2 TL
1 FF/REW Ⓛ
C253 6V22
C252 16V10
R260 22K
R256 150K
R257 10K
R259 220K
R258 39K
D252 MA165
QR251 UN2213
R254 22K
R262 1000
R261 1000
QR252 UN2213
QR253 UN2213
R265 10K
D253 MA165
C251 25V3.3
R255 5600
D251 MA165
R251 220K
R252 10K
R253 39K
VCC
GND
IC251 LM393P μPC393C
TP2001 REC/PLAY
5.0Vp-p 25Hz
TP2002 REC/PLAY
5.0Vp-p 25Hz
TP2015 REC/PLAY
5.0Vp-p 50Hz
TP2031 REC
4.0Vp-p 25Hz
TP2032 REC
4.0Vp-p 25Hz
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

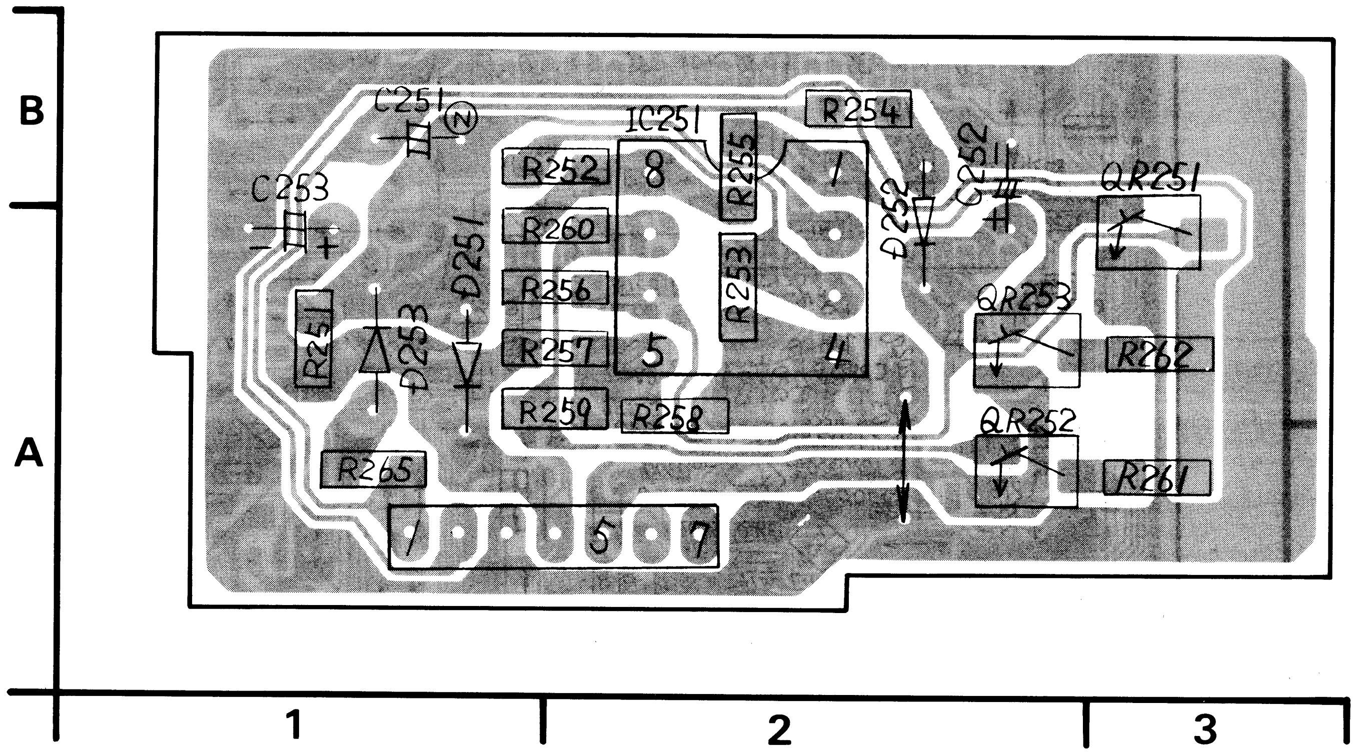
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

3-10. SUB SERVO (3) PACK C.B.A. (VEP02346A)


V···· TO LUMINANCE & CHROMINANCE
A···· TO AUDIO
D2001
MA165
D2002
MA165
Ⓟ AT LED
Rch Ⓛ Ⓐ
Lch Ⓛ Ⓐ
S.REG 5V Ⓟ
LP Ⓗ Ⓐ Ⓥ
ART V/H/N Ⓥ
VSS Ⓥ
H.SW Ⓥ Ⓐ Ⓢ
AT OFF Ⓛ Ⓟ
ROTARY SW Ⓥ
H.AMP SW Ⓥ
TRACKING ENV. Ⓥ
ART V SP Ⓥ
ART V Ⓥ
ART V LP Ⓥ
ENV SELECT Ⓥ
P2002 (TO SERVO PACK)
1 GND P2203-1
2 GND P2203-2
NON SW 12V Ⓟ
FULL ERASE Ⓗ Ⓢ
REG 12.3V Ⓟ
MOTOR GND Ⓟ
MOTOR REG Ⓟ
P2001 (TO AC HEAD)
1 CTL HEAD ⊕ P1501-1
2 CTL HEAD ⊖ P1501-2
7
6
MOTOR GND 5
REG 5V 4
GND 3
TL 2
FF/REW Ⓛ 1
C253 6V22
C252 16V10
R260 22K
R256 150K
R257 10K
R259 220K
R258 39K
D252 MA165
QR251 UN2213
R254 22K
R262 1000
R261 1000
QR252 UN2213
QR253 UN2213
R265 10K
D253 MA165
C251 25V3.3
R255 5600
D251 MA165
R251 220K
R252 10K
R253 39K
IC251 LM393P μPC393C
VCC
GND
8 7 6 5
1 2 3 4
SUB SERVO (3) PACK C.B.A. (VEP02346A)
TP2001 REC/PLAY
V
5.0Vp-p 25Hz
TP2002 REC/PLAY
5.0Vp-p 25Hz
TP2015 REC/PLAY
V
5.0Vp-p 50Hz
TP2031 REC
4.0Vp-p 25Hz
TP2032 REC
4.0Vp-p 25Hz

SUB SERVO (3) PACK C.B.A.	
Transistor & Resistor	
QR251 QR252 QR253	B-3 A-2 A-2
Integrated Circuit	
IC251	B-2

ADDRESS INFORMATION


B
A
1
2
3
C251
IC251
R254
C253
R252
R260
R256
R257
R259
R258
R255
R253
D252
C252
QR251
QR253
QR252
R251
D253
D251
R262
R261
R265
8 7 5 4
1 5 7

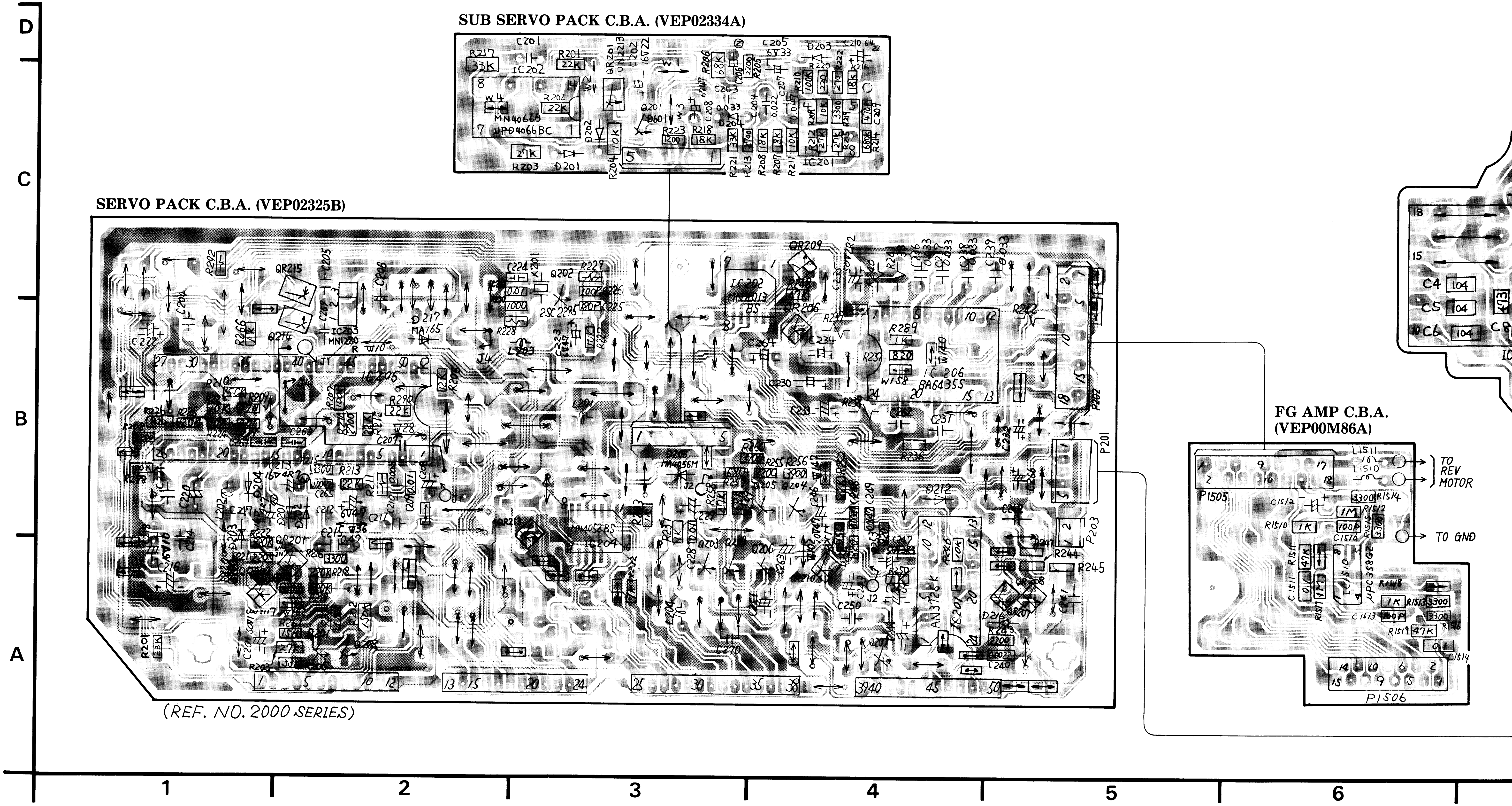
PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
N YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE
R SIGNAL. (SP MODE)
NT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
R SIGNAL. (SP MODE)

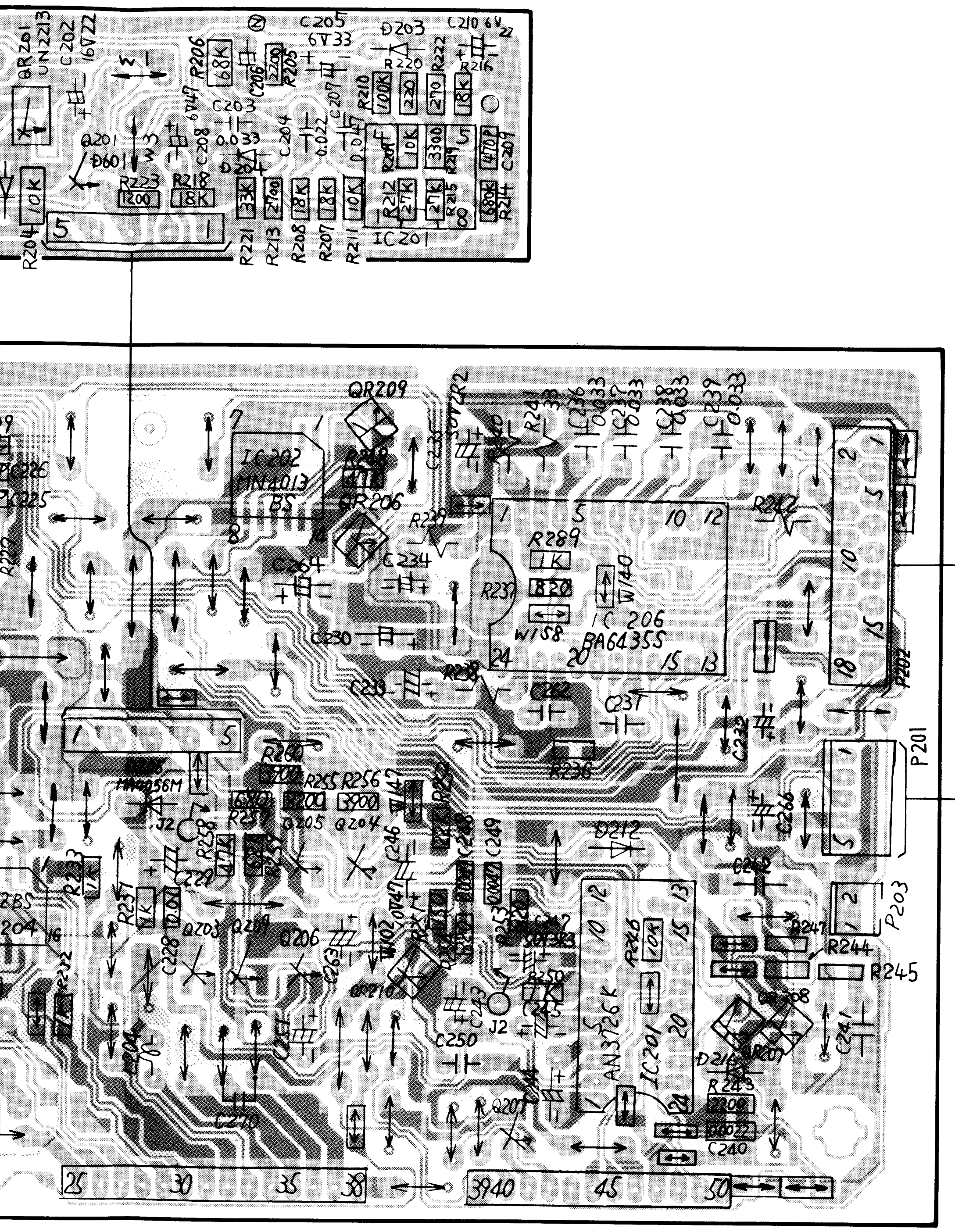
5 6 7 8 9

Next Page:
SERVO PACK Section

3-11. SERVO PACK C.B.A. (VEP02325B)

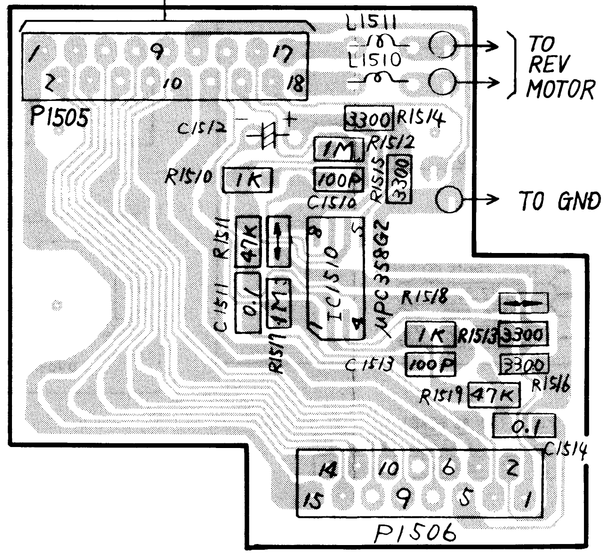

SUB SERVO PACK C.B.A. (VEP02334A)
SERVO PACK C.B.A. (VEP02325B)
FG AMP C.B.A. (VEP00M86A)
(REF. NO. 2000 SERIES)
TO REV MOTOR
TO GND
P1505
P1506
P201
P202
P203
IC201
IC202
IC203
IC204
IC205
IC206
IC1510
MN4066B
UPD4066BC
MN1013BS
MN1280
MN4052BS
MN4056M
BA6435S
AN3726K
UPC358G2
D
C
B
A
1
2
3
4
5
6

C.B.A. (VEP02334A)



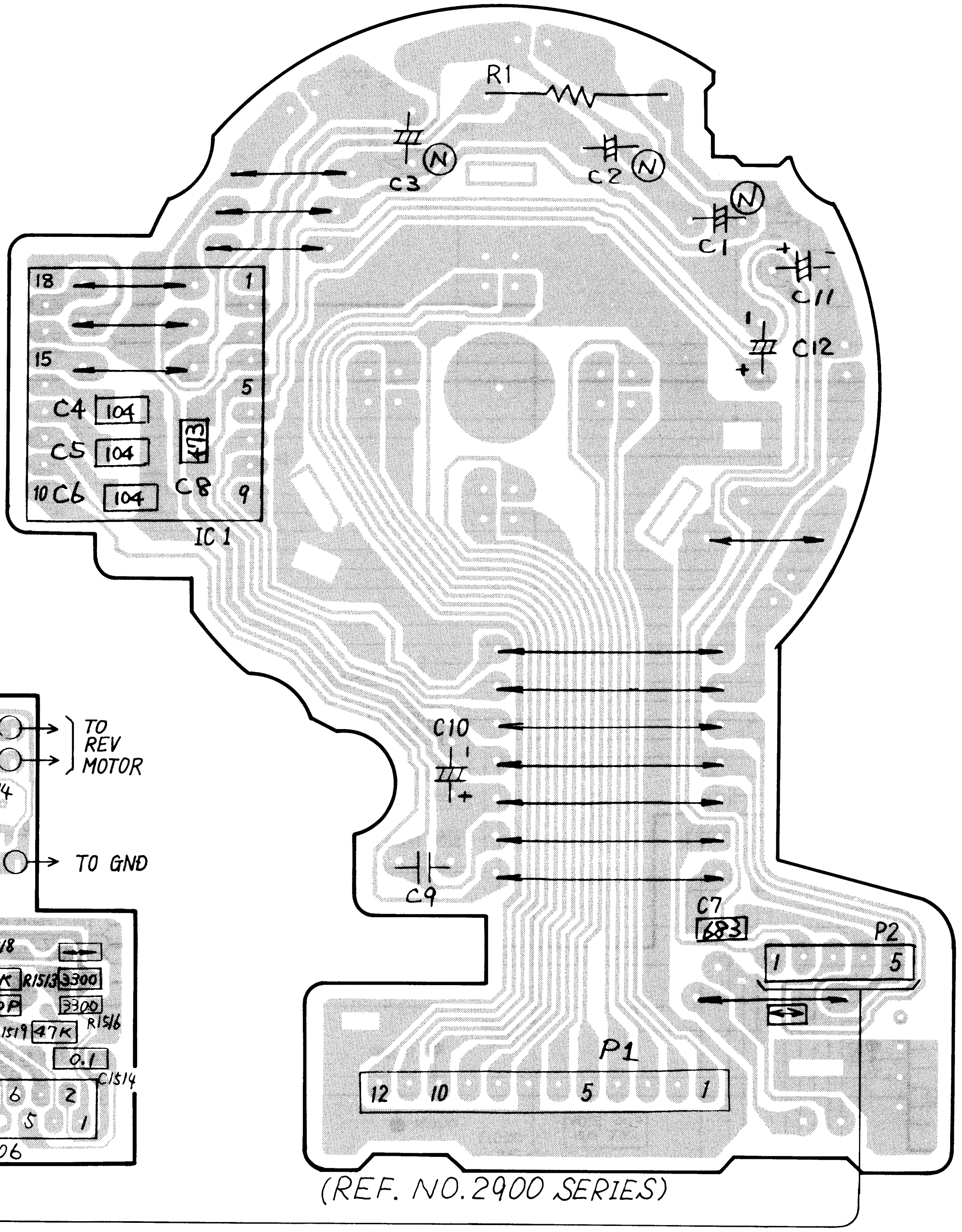
QR201
UN2213
C202 16V22
C205 6V33
D203
C210 6V22
R206 68K
C206 220
R205
R210 100K
R220 220
R222 270
R216
C203
C208 0.033
C204
C207 0.022
Q201
D601
D204
R223 1200
R218 18K
R221 33K
R213 2700
R208 18K
R207 18K
R211 10K
R212 27K
R215 12K
R214 680K
R219 3300
R204 10K
IC201
QR209
IC202 MN4013BS
QR206
C264
C234
R289 1K
R237 820
W140
IC206 BA6435S
W158
C230
C233
R238
C282
C237
C232
R242
P202
P201
R260
R255
R256 3900
Q205
Q204
J2
R257 1K
Q203
Q206
C228
C229
R233
C246
C249
D212
C242
C266
R247
R244
R245
P203
C243
C245
C250
AN3726K
IC201
R246 10K
R243 2200
C240
C241
Q207
C270
QR210
R204
25
30
35
38
3940
45
50

FG AMP C.B.A. (VEP00M86A)



P1505
1
2
9
10
17
18
L1511
L1510
TO REV MOTOR
TO GND
C1512
R1514 3300
R1512 1M
R1515 3300
R1510 1K
C1510 100P
R1511 47K
C1511 0.1
R1517 1M
IC1510 MPC358G2
R1518
R1513 1K
3300
C1513 100P
3300
R1519 47K
R1516
0.1
C1514
P1506
14
10
6
2
15
9
5
1

CYLINDER DRIVE C.B.A. (VEP00N05A)



R1
C3
C2
C1
C11
C12
18
1
15
5
C4 104
C5 104
C6 104
C8 473
10
9
IC 1
C10
C9
C7 683
P2
1
5
P1
12
10
5
1
(REF. NO.2900 SERIES)

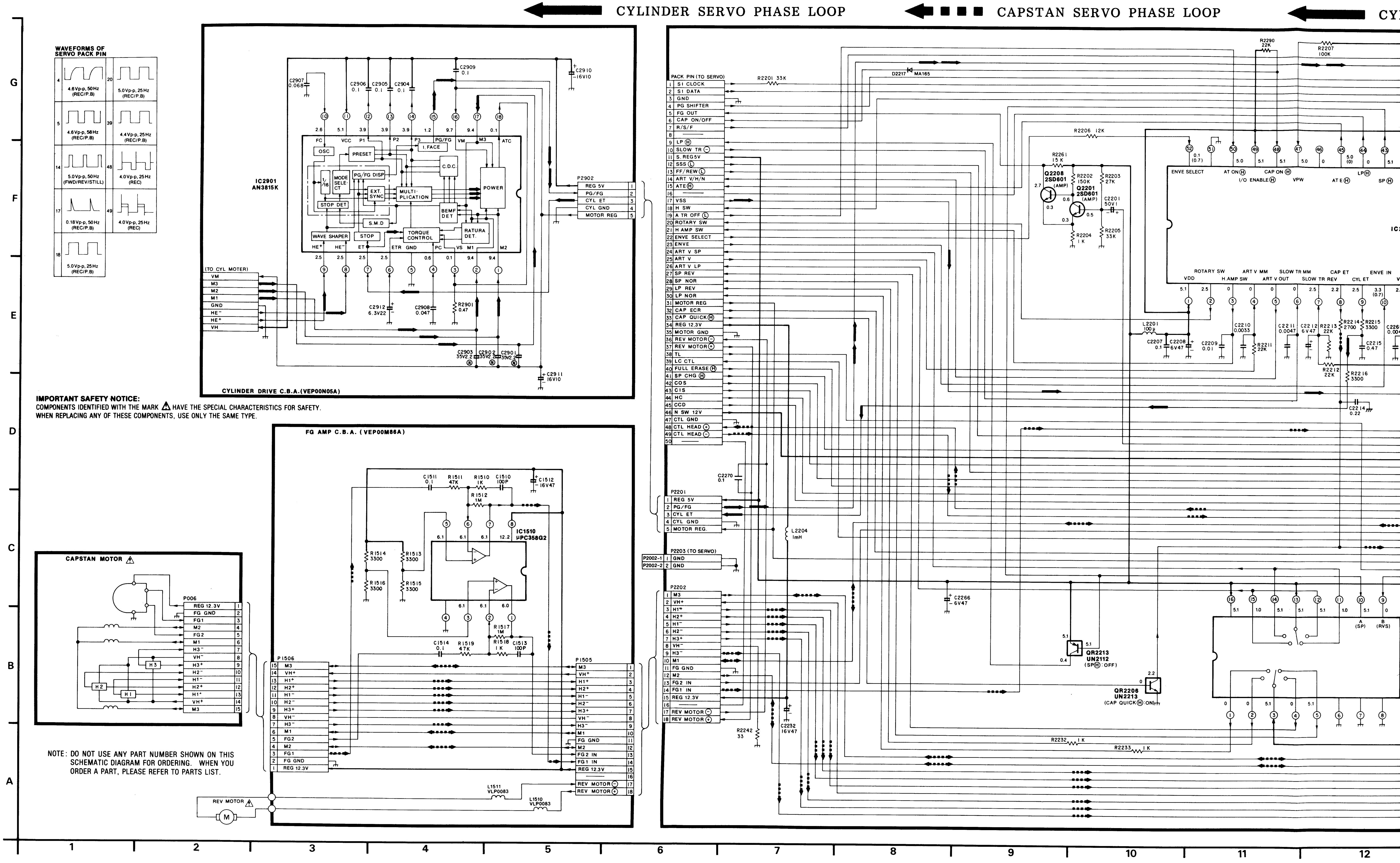
3 4 5 6 7 8

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

SERVO PACK C.B.A.	
Transistor	
Q201	C-3
Q2201	A-2
Q2202	C-3
Q2203	A-3
Q2204	B-4
Q2205	B-4
Q2206	A-4
Q2207	A-4
Q2208	A-2
Q2209	A-3
Transistor & Resistor	
QR201	C-3
QR2201	A-2
QR2202	A-1
QR2206	B-4
QR2207	A-5
QR2208	A-5
QR2209	C-4
QR2210	A-4
QR2213	B-3
QR2214	B-1
QR2215	C-2
Integrated Circuit	
IC201	C-4
IC202	C-3
IC1510	A-6
IC2201	A-4
IC2202	C-3
IC2203	B-2
IC2204	A-3
IC2205	B-2
IC2206	B-4
IC2901	B-7
Connector	
P1505	B-5
P1506	A-6
P2201	B-5
P2202	B-5
P2203	B-5
P2901	A-8
P2902	A-8

ADDRESS INFORMATION

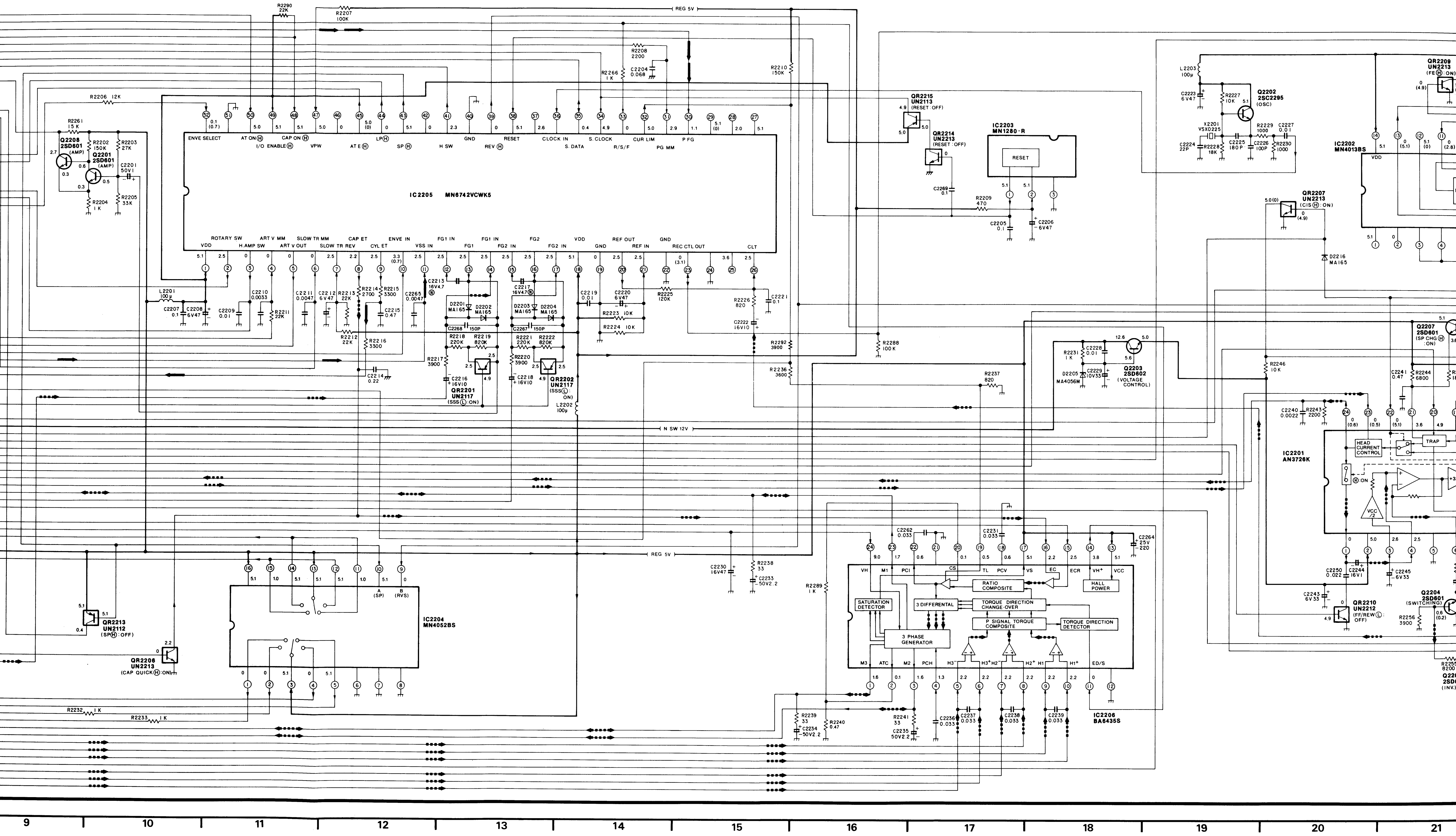
3-12. SERVO PACK SCHEMATIC DIAGRAM


CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP
WAVEFORMS OF SERVO PACK PIN
4.6Vp-p, 50Hz (REC/P.B)
5.0Vp-p, 25Hz (REC/P.B)
4.6Vp-p, 58Hz (REC/P.B)
4.4Vp-p, 25Hz (REC/P.B)
5.0Vp-p, 50Hz (FWD/REV/STILL)
4.0Vp-p, 25Hz (REC)
0.18Vp-p, 50Hz (REC/P.B)
4.0Vp-p, 25Hz (REC)
5.0Vp-p, 25Hz (REC/P.B)
IC2901 AN3815K
OSC
PRESET
I. FACE
C.D.C.
MODE SELECT
PG/FG DISP
EXT. SYNC
MULTI-PLICATION
POWER
STOP DET
BEMF DET
S.M.D
WAVE SHAPER
STOP
TORQUE CONTROL
RATURA DET.
P2902
REG 5V
PG/FG
CYL ET
CYL GND
MOTOR REG
(TO CYL MOTER)
VM
M3
M2
M1
GND
HE⁻
HE⁺
VH
CYLINDER DRIVE C.B.A.(VEP00N05A)
FG AMP C.B.A. (VEP00M86A)
IC1510 μPC358G2
CAPSTAN MOTOR ⚠
P006
REG 12.3V
FG GND
FG1
M2
FG2
M1
H3⁻
VH⁻
H3⁺
H2⁻
H1⁻
H2⁺
H1⁺
VH⁺
M3
P1506
P1505
REV MOTOR ⚠
L1511 VLP0083
L1510 VLP0083
PACK PIN (TO SERVO)
1 SI CLOCK
2 SI DATA
3 GND
4 PG SHIFTER
5 FG OUT
6 CAP ON/OFF
7 R/S/F
9 LP Ⓗ
10 SLOW TR ⊖
11 S. REG5V
12 SSS Ⓛ
13 FF/REW Ⓛ
14 ART V/H/N
15 ATE Ⓗ
17 VSS
18 H SW
19 A TR OFF Ⓛ
20 ROTARY SW
21 H AMP SW
22 ENVE SELECT
23 ENVE
24 ART V SP
25 ART V
26 ART V LP
27 SP REV
28 SP NOR
29 LP REV
30 LP NOR
31 MOTOR REG
32 CAP ECR
33 CAP QUICK Ⓗ
34 REG 12.3V
35 MOTOR GND
36 REV MOTOR ⊖
37 REV MOTOR ⊕
38 TL
39 LC CTL
40 FULL ERASE Ⓗ
41 SP CHG Ⓗ
42 COS
43 CIS
44 HC
45 CCD
46 N SW 12V
47 CTL GND
48 CTL HEAD ⊕
49 CTL HEAD ⊖
P2201
P2203 (TO SERVO)
P2202
Q2208 2SD601 (AMP)
Q2201 2SD601 (AMP)
QR2213 UN2112 (SPⒽ:OFF)
QR2206 UN2213 (CAP QUICKⒽ:ON)
D2217 MA165
ENVE SELECT
AT ON Ⓗ
CAP ON Ⓗ
I/O ENABLE Ⓗ
VPW
ATE Ⓗ
LPⒽ
SP Ⓗ
ROTARY SW
ART V MM
SLOW TR MM
CAP ET
ENVE IN
VDD
H.AMP SW
ART V OUT
SLOW TR REV
CYL ET
A (SP)
B (RVS)
1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G

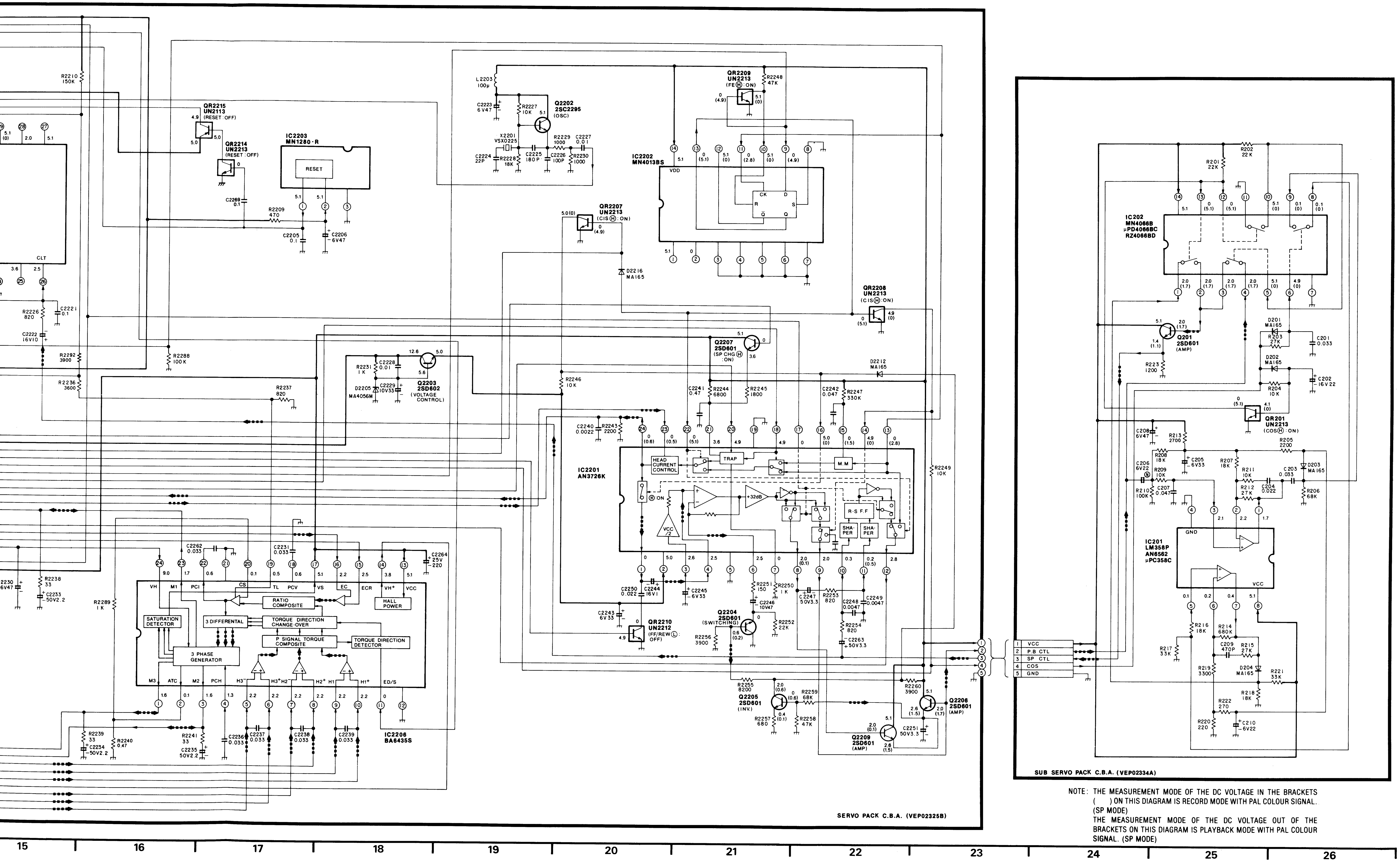
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

CAPSTAN SERVO PHASE LOOP ◀━━ CYLINDER SERVO SPEED LOOP ◀■■■ CAPSTAN SERVO SPEED LOOP


IC2205 MN6742VCWK5
ENVE SELECT
AT ON Ⓗ
I/O ENABLE Ⓗ
CAP ON Ⓗ
VPW
AT E Ⓗ
LP Ⓗ
SP Ⓗ
H SW
GND
REV Ⓗ
RESET
CLOCK IN
S. DATA
S. CLOCK
R/S/F
CUR LIM
PG MM
P FG
VDD
ROTARY SW
H.AMP SW
ART V MM
ART V OUT
SLOW TR MM
SLOW TR REV
CAP ET
CYL ET
ENVE IN
VSS IN
FG1 IN
FG1
FG2 IN
FG2
REF OUT
REF IN
REC CTL OUT
CLT
REG 5V
N SW 12V
Q2208 2SD601 (AMP)
Q2201 2SD601 (AMP)
QR2201 UN2117 (SSSⓁ:ON)
QR2202 UN2117 (SSSⓁ:ON)
QR2213 UN2112 (SPⒽ:OFF)
QR2206 UN2213 (CAP QUICKⒽ:ON)
IC2204 MN4052BS
A (SP)
B (RVS)
QR2215 UN2113 (RESET:OFF)
QR2214 UN2213 (RESET:OFF)
IC2203 MN1280·R
RESET
IC2206 BA6435S
VH
M1
PCI
CS
TL
PCV
VS
EC
ECR
VH+
VCC
SATURATION DETECTOR
3 DIFFERENTIAL
RATIO COMPOSITE
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
HALL POWER
3 PHASE GENERATOR
M3
ATC
M2
PCH
H3−
H3+
H2−
H2+
H1−
H1+
ED/S
Q2202 2SC2295 (OSC)
X2201 VSX0225
Q2203 2SD602 (VOLTAGE CONTROL)
D2205 MA4056M
QR2207 UN2213 (CISⒽ:ON)
QR2209 UN2213 (FEⒽ:ON)
IC2202 MN4013BS
D2216 MA165
Q2207 2SD601 (SP CHGⒽ:ON)
IC2201 AN3726K
HEAD CURRENT CONTROL
TRAP
Ⓗ:ON
VCC/2
QR2210 UN2212 (FF/REWⓁ:OFF)
Q2204 2SD601 (SWITCHING)
9
10
11
12
13
14
15
16
17
18
19
20
21

■ ■ ■ ■ CAPSTAN SERVO SPEED LOOP


R2210 150K
QR2215 UN2113 (RESET:OFF)
QR2214 UN2213 (RESET:OFF)
IC2203 MN1280-R
RESET
C2269 0.1
R2209 470
C2205 0.1
C2206 6V47
L2203 100µ
C2223 6V47
R2227 10K
Q2202 2SC2295 (OSC)
X2201 VSX0225
C2224 22P
R2228 18K
C2225 180P
R2229 1000
C2226 100P
C2227 0.01
R2230 1000
QR2209 UN2213 (FE(H):ON)
R2248 47K
IC2202 MN4013BS
VDD
CK
D
R
S
Q̄
Q
QR2207 UN2213 (CIS(H):ON)
D2216 MA165
QR2208 UN2213 (CIS(H):ON)
R2226 820
C2221 0.1
C2222 16V10
R2292 3900
R2288 100K
R2236 3600
R2231 1K
C2228 0.01
D2205 MA4056M
C2229 10V33
Q2203 2SD602 (VOLTAGE CONTROL)
R2237 820
R2246 10K
Q2207 2SD601 (SP CHG(H):ON)
D2212 MA165
C2241 0.47
R2244 6800
R2245 1800
C2242 0.047
R2247 330K
C2240 0.0022
R2243 2200
IC2201 AN3726K
HEAD CURRENT CONTROL
TRAP
M.M
(H):ON
+32dB
VCC/2
R·S F.F
SHA-PER
SHA-PER
R2249 10K
C2250 0.022
C2244 16V1
C2245 6V33
C2243 6V33
QR2210 UN2212 (FF/REW(L):OFF)
R2251 150
R2250 1K
C2246 10V47
Q2204 2SD601 (SWITCHING)
R2252 22K
R2256 3900
C2247 50V3.3
R2253 820
C2248 0.0047
C2249 0.0047
R2254 820
C2263 50V3.3
R2255 8200
Q2205 2SD601 (INV)
R2259 68K
R2257 680
R2258 47K
R2260 3900
Q2206 2SD601 (AMP)
Q2209 2SD601 (AMP)
C2251 50V3.3
C2262 0.033
C2231 0.033
C2264 25V 220
C2230 6V47
R2238 33
C2233 50V2.2
R2289 1K
VH
M1
PC1
CS
TL
PCV
VS
EC
ECR
VH+
VCC
SATURATION DETECTOR
RATIO COMPOSITE
HALL POWER
3 DIFFERENTAL
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
3 PHASE GENERATOR
M3
ATC
M2
PCH
H3−
H3+
H2−
H2+
H1−
H1+
ED/S
R2239 33
C2234 50V2.2
R2240 0.47
R2241 33
C2235 50V2.2
C2236 0.033
C2237 0.033
C2238 0.033
C2239 0.033
IC2206 BA6435S
SERVO PACK C.B.A. (VEP02325B)
1 VCC
2 P.B CTL
3 SP CTL
4 COS
5 GND
R202 22K
R201 22K
IC202 MN4066B µPD4066BC RZ4066BD
Q201 2SD601 (AMP)
D201 MA165
R203 27K
C201 0.033
D202 MA165
C202 16V22
R223 1200
R204 10K
QR201 UN2213 (COS(H):ON)
C208 6V47
R213 2700
R205 2200
R208 18K
C205 6V33
R207 18K
C206 6V22
R209 10K
R211 10K
C203 0.033
D203 MA165
R210 100K
C207 0.047
R212 27K
C204 0.022
R206 68K
IC201 LM358P AN6562 µPC358C
GND
VCC
R216 18K
R214 680K
R217 33K
C209 470P
R215 27K
R219 3300
D204 MA165
R221 33K
R218 18K
R222 270
R220 220
C210 6V22
SUB SERVO PACK C.B.A. (VEP02334A)
15
16
17
18
19
20
21
22
23
24
25
26

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

Next Page:
LUMINANCE & CHROMINANCE Section

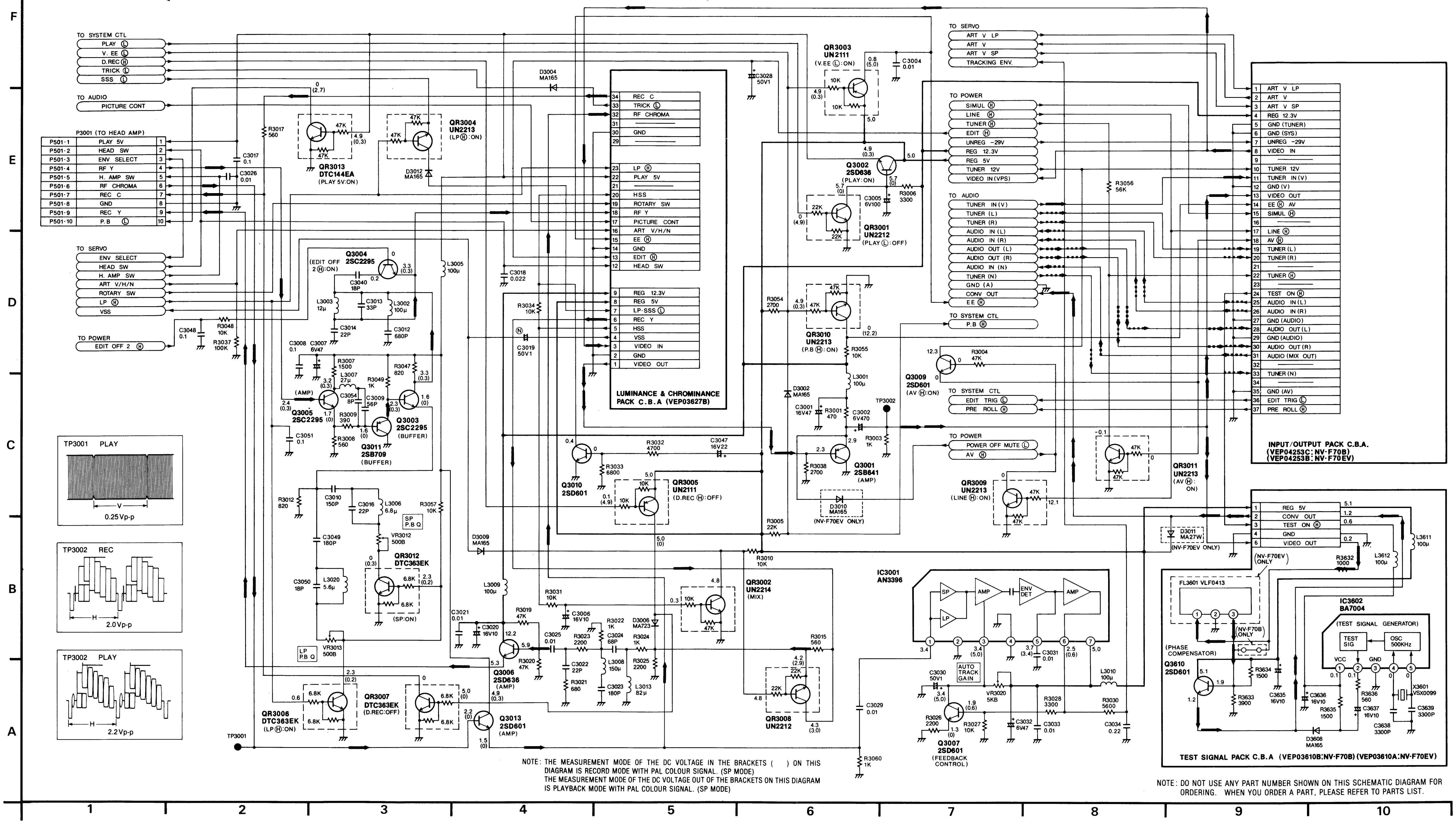
3-13. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

AUDIO MAIN SIGNAL PATH IN REC MODE

AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
TO SYSTEM CTL
PLAY Ⓛ
V. EE Ⓛ
D.REC Ⓗ
TRICK Ⓛ
SSS Ⓛ
TO AUDIO
PICTURE CONT
P3001 (TO HEAD AMP)
P501·1 PLAY 5V
P501·2 HEAD SW
P501·3 ENV SELECT
P501·4 RF Y
P501·5 H. AMP SW
P501·6 RF CHROMA
P501·7 REC C
P501·8 GND
P501·9 REC Y
P501·10 P.B Ⓛ
TO SERVO
ENV SELECT
HEAD SW
H. AMP SW
ART V/H/N
ROTARY SW
LP Ⓗ
VSS
TO POWER
EDIT OFF 2 Ⓗ
QR3013 DTC144EA (PLAY 5V:ON)
QR3004 UN2213 (LP Ⓗ:ON)
Q3004 2SC2295
Q3005 2SC2295
Q3003 2SC2295 (BUFFER)
Q3011 2SB709 (BUFFER)
QR3012 DTC363EK (SP:ON)
QR3006 DTC363EK (LP Ⓗ:ON)
QR3007 DTC363EK (D.REC:OFF)
Q3013 2SD601 (AMP)
Q3006 2SD636 (AMP)
Q3010 2SD601
QR3005 UN2111 (D.REC Ⓗ:OFF)
QR3002 UN2214 (MIX)
QR3008 UN2212
QR3003 UN2111 (V.EE Ⓛ:ON)
Q3002 2SD636 (PLAY:ON)
QR3001 UN2212 (PLAY Ⓛ:OFF)
QR3010 UN2213 (P.B Ⓗ:ON)
Q3009 2SD601 (AV Ⓗ:ON)
Q3001 2SB641 (AMP)
QR3009 UN2213 (LINE Ⓗ:ON)
QR3011 UN2213 (AV Ⓗ: ON)
Q3007 2SD601 (FEEDBACK CONTROL)
IC3001 AN3396
SP
LP
AMP
ENV DET
AUTO TRACK GAIN
LUMINANCE & CHROMINANCE PACK C.B.A (VEP03627B)
REC C
TRICK Ⓛ
RF CHROMA
GND
LP Ⓗ
PLAY 5V
HSS
ROTARY SW
RF Y
PICTURE CONT
ART V/H/N
EE Ⓗ
EDIT Ⓗ
HEAD SW
REG 12.3V
REG 5V
LP·SSS Ⓛ
REC Y
VSS
VIDEO IN
VIDEO OUT
TO SERVO
ART V LP
ART V
ART V SP
TRACKING ENV.
TO POWER
SIMUL Ⓗ
LINE Ⓗ
TUNER Ⓗ
EDIT Ⓗ
UNREG −29V
REG 12.3V
REG 5V
TUNER 12V
VIDEO IN (VPS)
TO AUDIO
TUNER IN (V)
TUNER (L)
TUNER (R)
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
AUDIO IN (N)
TUNER (N)
GND (A)
CONV OUT
EE Ⓗ
TO SYSTEM CTL
P.B Ⓗ
TO SYSTEM CTL
EDIT TRIG Ⓛ
PRE ROLL Ⓗ
TO POWER
POWER OFF MUTE Ⓛ
AV Ⓗ
INPUT/OUTPUT PACK C.B.A. (VEP04253C: NV-F70B) (VEP04253B: NV-F70EV)
TEST SIGNAL PACK C.B.A (VEP03610B: NV-F70B) (VEP03610A: NV-F70EV)
FL3601 VLF0413
(PHASE COMPENSATOR)
Q3610 2SD601
IC3602 BA7004
(TEST SIGNAL GENERATOR)
TEST SIG
OSC 500KHz
VCC
GND
X3601 VSX0099
TP3001 PLAY
0.25Vp-p
TP3002 REC
2.0Vp-p
TP3002 PLAY
2.2Vp-p
TP3001
TP3002

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

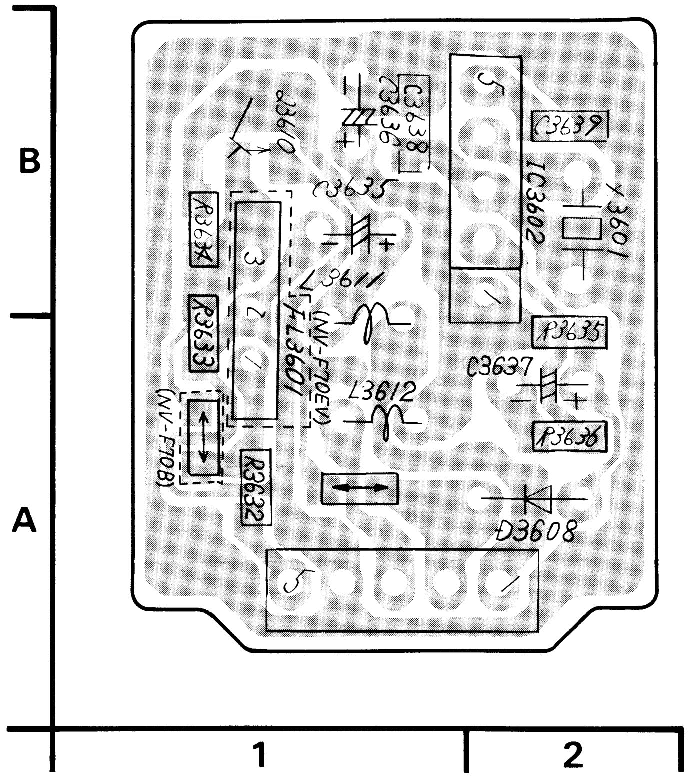
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-14. TEST SIGNAL PACK C.B.A.
(VEP03610B: NV-F70B)
(VEP03610A: NV-F70EV)

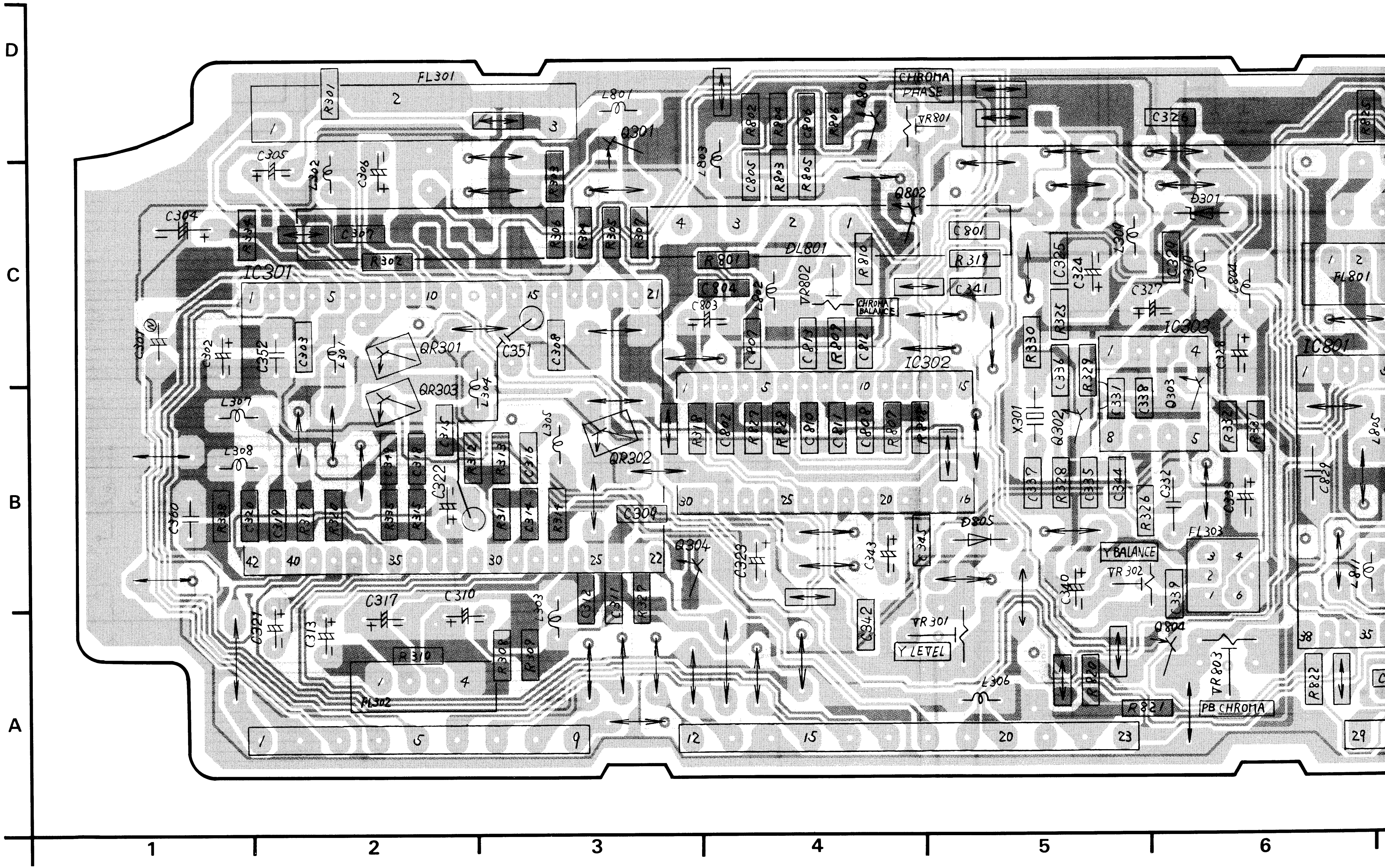
3-15. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627B)

TEST SIGNAL PACK C.B.A.	
Transistor	
Q3601	B-1
Integrated Circuit	
IC3601	B-2

ADDRESS INFORMATION



B
A
1
2
Q3610
C3636
C3638
C3639
IC3602
Y3601
C3635
R3634
R3633
L3611
FL3601
(NV-F70EV)
(NV-F70B)
R3635
C3637
L3612
R3636
R3632
D3608

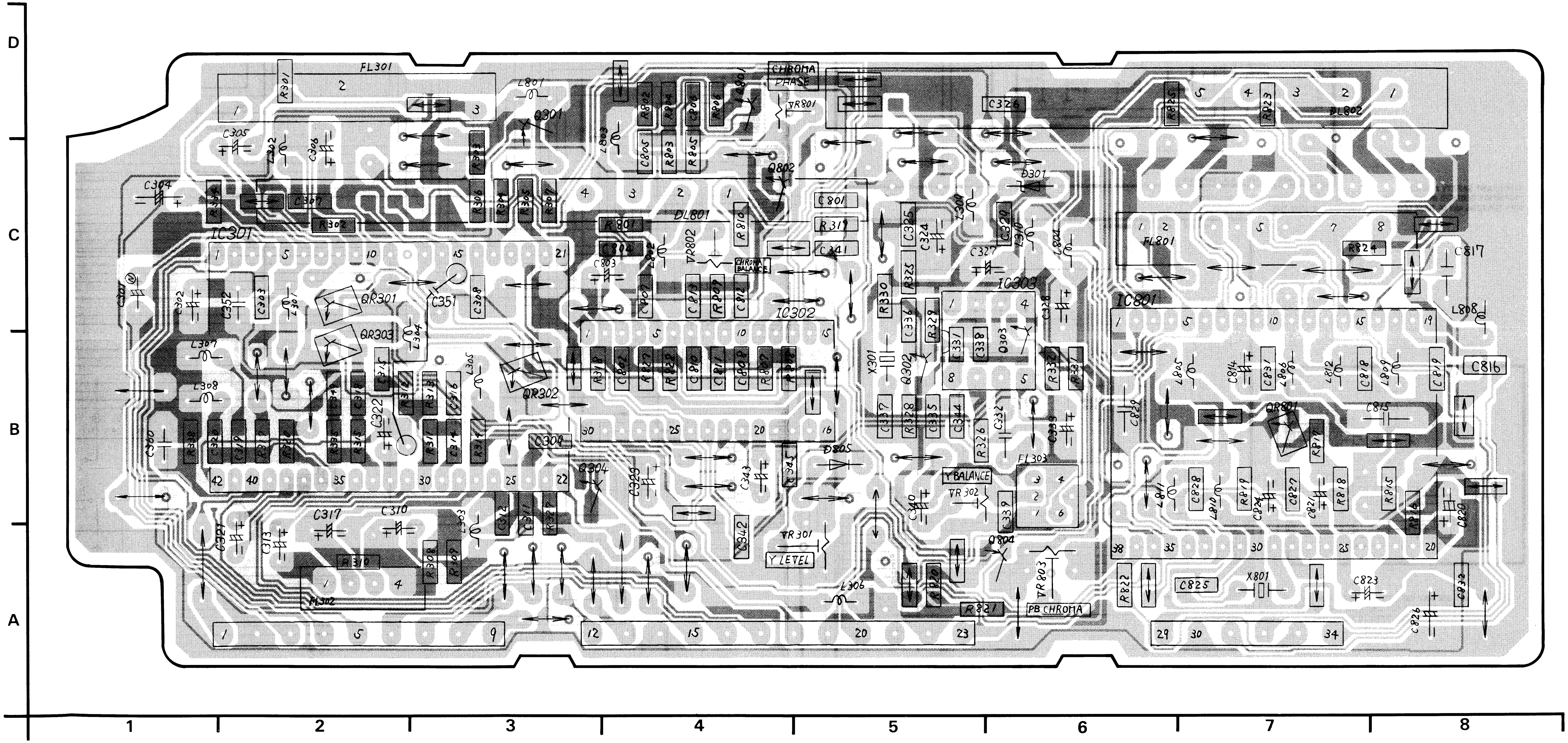


D
C
B
A
1
2
3
4
5
6
FL301
R301
L801
Q301
CHROMA PHASE
VR801
C323
C305
L302
C306
L803
C805
R803
R805
Q802
D301
C304
R304
R302
C801
R801
DL801
R319
C326
C324
C327
L301
C325
L310
L804
FL801
IC301
C803
VR802
CHROMA BALANCE
C341
R330
R325
IC303
C328
IC801
C307
C302
C352
C303
L307
QR301
C351
C308
QR303
L304
IC302
X301
Q302
C336
R329
C337
C338
Q303
R332
R331
L308
L305
QR302
C322
C309
R318
C337
R328
C335
C344
R326
C332
C333
C329
C360
D805
Q304
C339
C343
C342
C340
Y BALANCE
VR302
FL303
C321
C313
C317
C310
L303
C342
VR301
Y LEVEL
Q804
VR803
R310
R308
R309
FL302
L306
R820
R821
PB CHROMA
R822

3-15. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627B)

LUMINANCE & CHROMINANCE PACK C.B.A.			
Transistor		**Integrated Circuit**	
Q301	D-3	IC301	C-2
Q302	B-5	IC302	C-4
Q303	B-6	IC303	C-6
Q304	B-3	IC801	C-6
Q801	D-4	**Adjustment**	
Q802	C-4	VR301	A-5
Q804	A-6	VR302	B-5
Transistor & Resistor		VR801	D-4
QR301	C-2	VR802	C-4
QR302	B-3	VR803	A-6
QR303	B-2		
QR801	B-7		

ADDRESS INFORMATION



D
C
B
A
1
2
3
4
5
6
7
8
FL301
R301
L801
Q301
CHROMA PHASE
VR801
C326
DL802
R823
R825
C305
L302
C306
C304
R304
C307
R302
R303
R306
R308
R305
R307
DL801
R801
C804
C803
VR802
CHROMA BALANCE
L802
Q802
C801
R319
R810
C341
C805
R803
R805
R802
R804
C806
C802
L803
C325
C324
L301
D301
C329
C327
L310
L804
IC301
IC302
IC303
IC801
FL801
R824
C817
L808
C816
QR301
QR303
QR302
C351
C352
C303
C302
C311
C308
L307
L308
L304
L305
C322
C300
R330
R325
C336
R329
C331
C338
Q303
X301
Q302
R332
R331
C330
C337
R328
C335
C334
R326
C332
C333
C823
C814
C831
L806
L812
C818
L809
C819
L805
C829
QR801
C815
R817
C309
Q304
C323
C343
C342
C344
D805
Y BALANCE
VR302
FL303
C340
C339
VR301
Y LEVEL
L306
Q804
VR803
PB CHROMA
R820
R821
L811
C828
L810
R819
C824
C827
C821
R818
R815
R816
C820
R822
C825
X801
C826
C832
C321
C313
C317
C310
L303
R310
R308
R309
FL302
C314
C311
R327
1
5
9
12
15
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23
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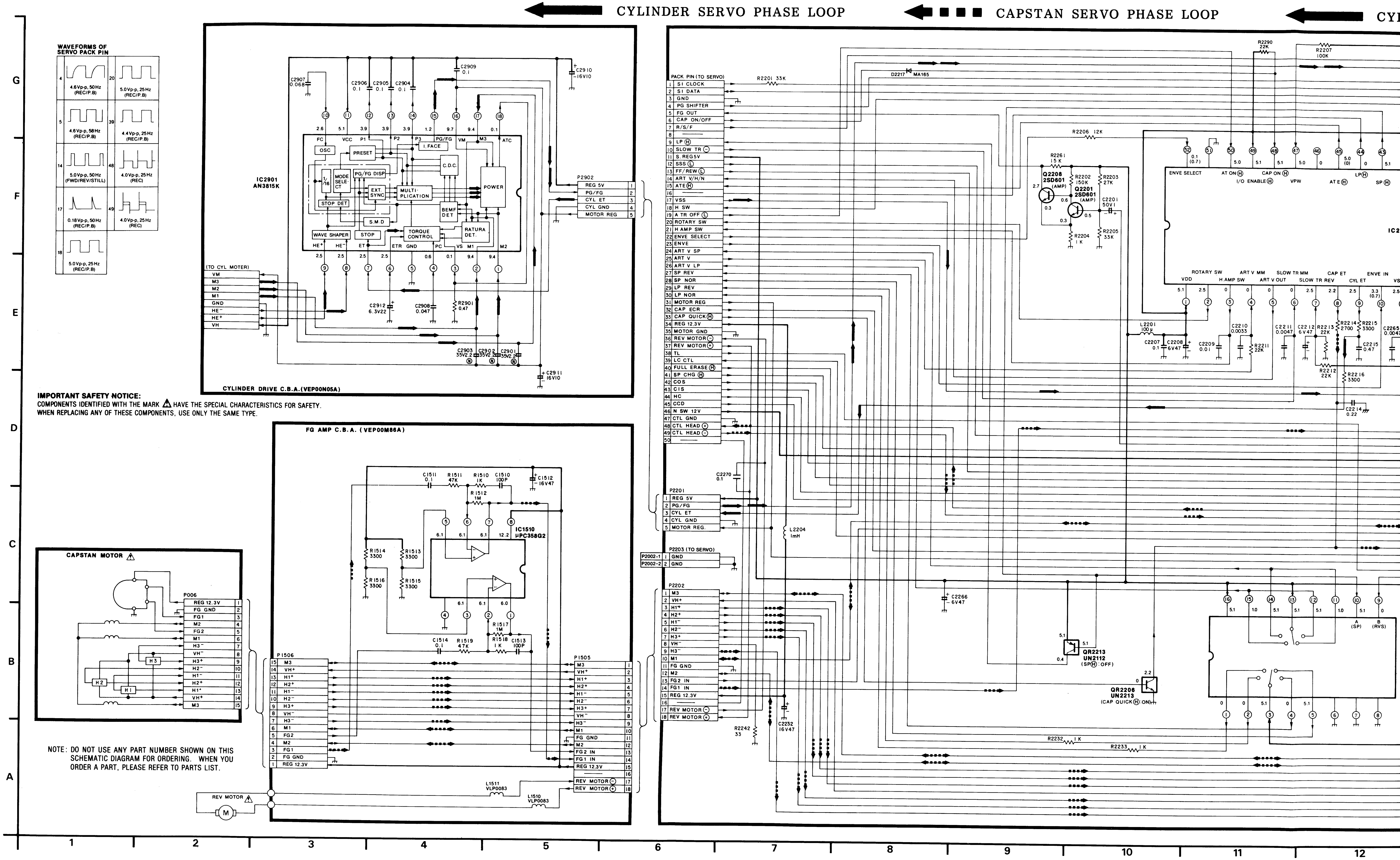
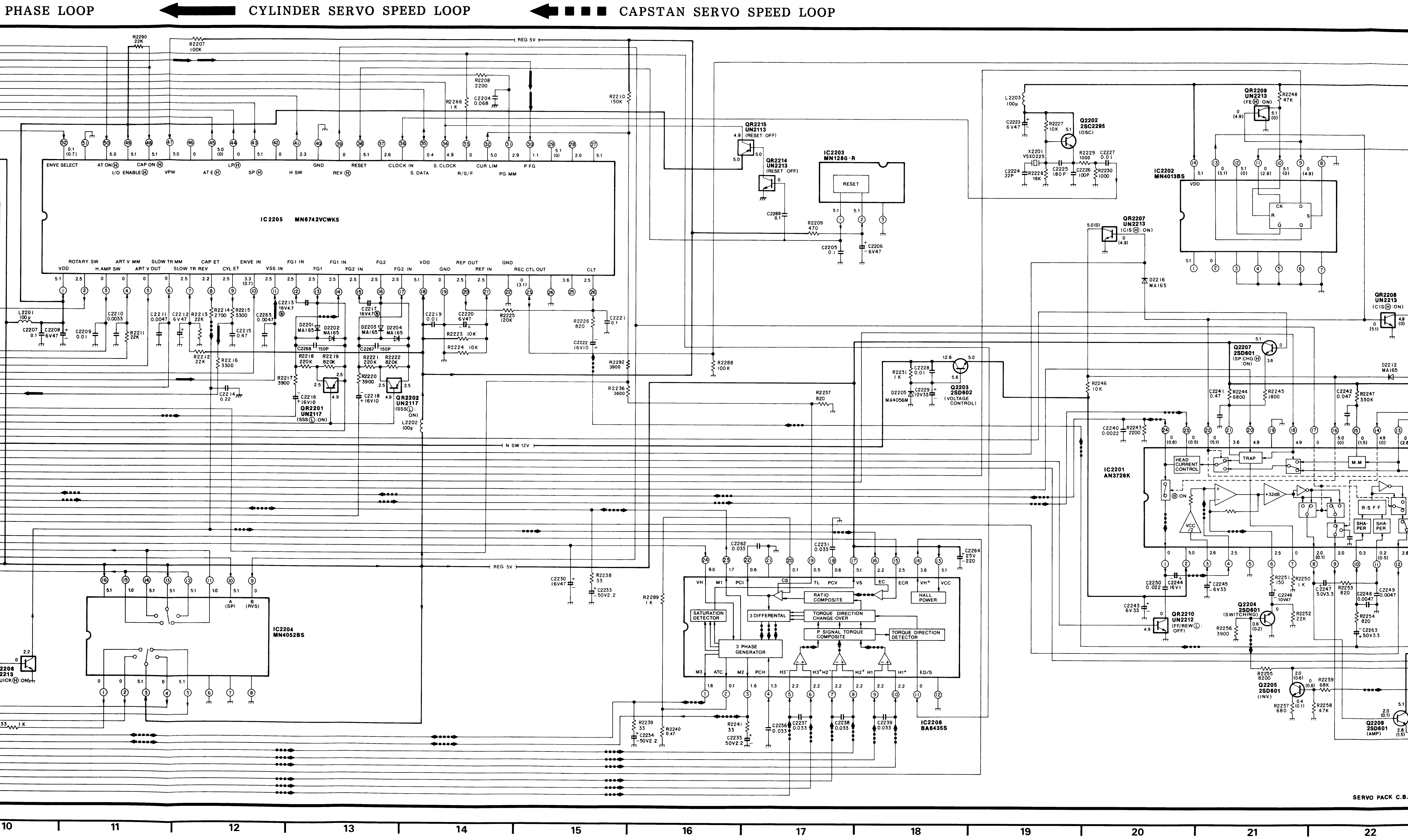
34

3-12. SERVO PACK SCHEMATIC DIAGRAM


CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP
WAVEFORMS OF SERVO PACK PIN
4.6Vp-p, 50Hz (REC/P.B)
5.0Vp-p, 25Hz (REC/P.B)
4.6Vp-p, 58Hz (REC/P.B)
4.4Vp-p, 25Hz (REC/P.B)
5.0Vp-p, 50Hz (FWD/REV/STILL)
4.0Vp-p, 25Hz (REC)
0.18Vp-p, 50Hz (REC/P.B)
4.0Vp-p, 25Hz (REC)
5.0Vp-p, 25Hz (REC/P.B)
IC2901 AN3815K
OSC
PRESET
MODE SELECT
PG/FG DISP
EXT. SYNC
MULTI-PLICATION
I. FACE
C.D.C.
POWER
BEMF DET
STOP DET
S.M.D
WAVE SHAPER
STOP
TORQUE CONTROL
RATURA DET.
(TO CYL MOTER)
VM
M3
M2
M1
GND
HE⁻
HE⁺
VH
P2902
REG 5V
PG/FG
CYL ET
CYL GND
MOTOR REG
CYLINDER DRIVE C.B.A.(VEP00N05A)
FG AMP C.B.A. (VEP00M86A)
IC1510 μPC358G2
P1506
P1505
CAPSTAN MOTOR
P006
REV MOTOR
L1511 VLP0083
L1510 VLP0083
PACK PIN (TO SERVO)
1 SI CLOCK
2 SI DATA
3 GND
4 PG SHIFTER
5 FG OUT
6 CAP ON/OFF
7 R/S/F
9 LP Ⓗ
10 SLOW TR Ⓛ
11 S REG5V
12 SSS Ⓛ
13 FF/REW Ⓛ
14 ART V/H/N
15 ATE Ⓗ
17 VSS
18 H SW
19 A TR OFF Ⓛ
20 ROTARY SW
21 H AMP SW
22 ENVE SELECT
23 ENVE
24 ART V SP
25 ART V
26 ART V LP
27 SP REV
28 SP NOR
29 LP REV
30 LP NOR
31 MOTOR REG
32 CAP ECR
33 CAP QUICK Ⓗ
34 REG 12.3V
35 MOTOR GND
36 REV MOTOR ⊖
37 REV MOTOR ⊕
38 TL
39 LC CTL
40 FULL ERASE Ⓗ
41 SP CHG Ⓗ
42 COS
43 CIS
44 HC
45 CCD
46 N SW 12V
47 CTL GND
48 CTL HEAD ⊕
49 CTL HEAD ⊖
P2201
P2203 (TO SERVO)
P2202
Q2208 2SD601 (AMP)
Q2201 2SD601 (AMP)
D2217 MA165
QR2213 UN2112 (SPⒽ:OFF)
QR2206 UN2213 (CAP QUICK Ⓗ:ON)
ENVE SELECT
AT ON Ⓗ
CAP ON Ⓗ
I/O ENABLE Ⓗ
VPW
AT E Ⓗ
LP Ⓗ
SP Ⓗ
ROTARY SW
H.AMP SW
ART V MM
ART V OUT
SLOW TR MM
SLOW TR REV
CAP ET
CYL ET
ENVE IN
VDD
A (SP)
B (RVS)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


PHASE LOOP
CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
REG 5V
IC2205 MN6742VCWK5
ENVE SELECT
AT ON Ⓗ
I/O ENABLE Ⓗ
CAP ON Ⓗ
VPW
AT E Ⓗ
LP Ⓗ
SP Ⓗ
H SW
GND
REV Ⓗ
RESET
CLOCK IN
S. DATA
S. CLOCK
R/S/F
CUR LIM
PG MM
P FG
VDD
ROTARY SW
H.AMP SW
ART V MM
ART V OUT
SLOW TR MM
SLOW TR REV
CAP ET
CYL ET
ENVE IN
VSS IN
FG1 IN
FG1
FG2 IN
FG2
REF OUT
REF IN
REC CTL OUT
CLT
QR2215 UN2113 (RESET:OFF)
QR2214 UN2213 (RESET:OFF)
IC2203 MN1280·R
QR2201 UN2117 (SSS Ⓛ :ON)
QR2202 UN2117 (SSS Ⓛ :ON)
N SW 12V
IC2204 MN4052BS
IC2206 BA6435S
SATURATION DETECTOR
3 DIFFERENTAL
3 PHASE GENERATOR
RATIO COMPOSITE
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
HALL POWER
Q2203 2SD602 (VOLTAGE CONTROL)
Q2202 2SC2295 (OSC)
X2201 VSX0225
QR2209 UN2213 (FE Ⓗ :ON)
IC2202 MN4013BS
QR2207 UN2213 (CIS Ⓗ :ON)
QR2208 UN2213 (CIS Ⓗ :ON)
Q2207 2SD601 (SP CHG Ⓗ :ON)
IC2201 AN3726K
HEAD CURRENT CONTROL
TRAP
M.M
+32dB
R·S F.F
SHAPER
VCC/2
QR2210 UN2212 (FF/REW Ⓛ :OFF)
Q2204 2SD601 (SWITCHING)
Q2205 2SD601 (INV.)
Q2209 2SD601 (AMP)
SERVO PACK C.B.
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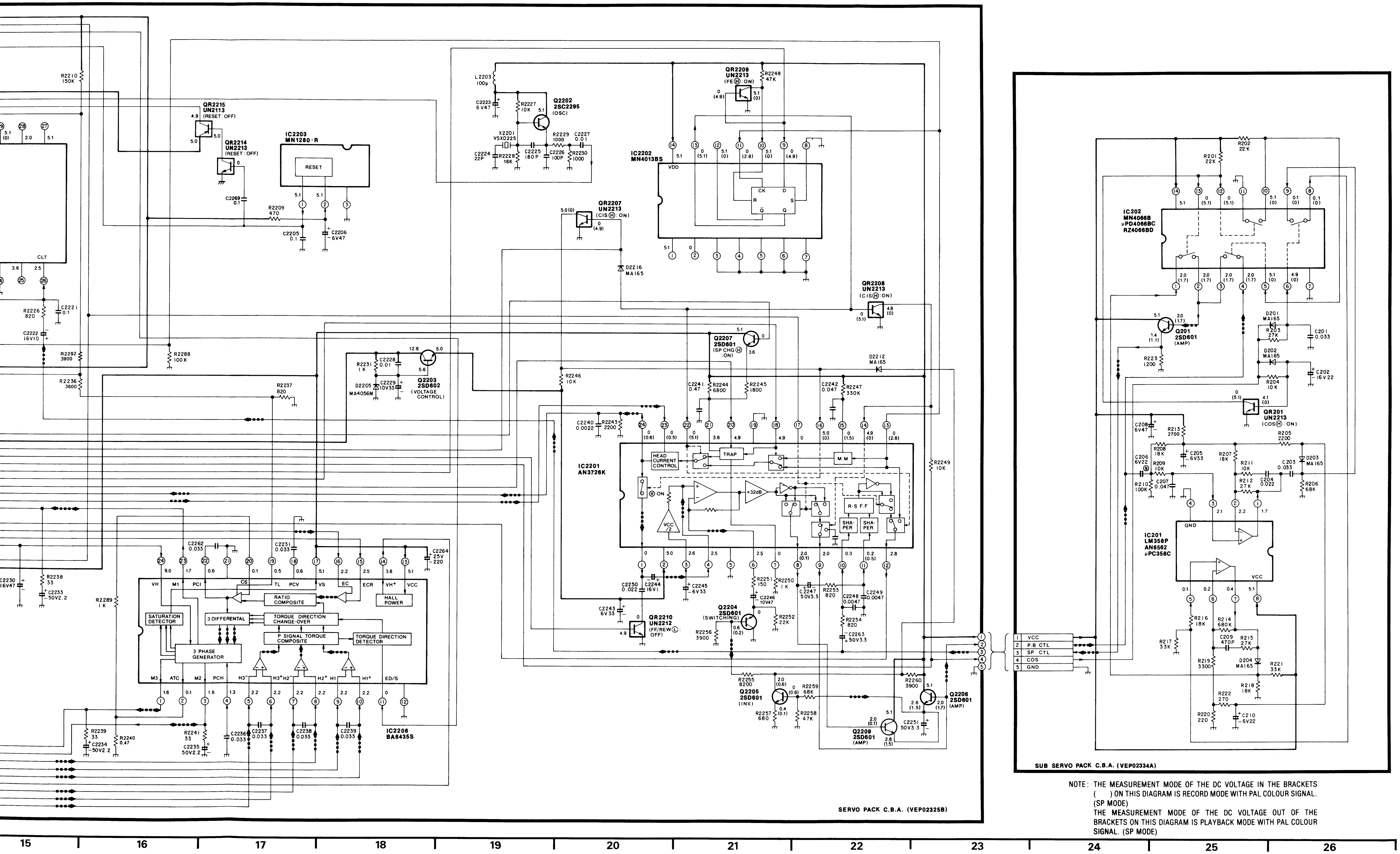
22

■ ■ ■ ■ CAPSTAN SERVO SPEED LOOP


IC2203 MN1280-R
RESET
QR2215 UN2113 (RESET: OFF)
QR2214 UN2213 (RESET: OFF)
Q2202 2SC2295 (OSC)
X2201 VSX0225
L2203 100μ
QR2209 UN2213 (FE Ⓗ: ON)
IC2202 MN4013BS
VDD
CK D R S Q̄ Q
QR2207 UN2213 (CIS Ⓗ: ON)
D2216 MA165
QR2208 UN2213 (CIS Ⓗ: ON)
Q2207 2SD601 (SP CHG Ⓗ: ON)
D2212 MA165
Q2203 2SD602 (VOLTAGE CONTROL)
D2205 MA4056M
IC2201 AN3726K
HEAD CURRENT CONTROL
TRAP
M.M
+32dB
R-S F.F
SHA-PER
VCC/2
Ⓗ: ON
IC2206 BA6435S
SATURATION DETECTOR
3 DIFFERENTAL
RATIO COMPOSITE
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
HALL POWER
3 PHASE GENERATOR
VH M1 PCI CS TL PCV VS EC ECR VH+ VCC
M3 ATC M2 PCH H3⁻ H3⁺ H2⁻ H2⁺ H1 H1⁺ ED/S
QR2210 UN2212 (FF/REW Ⓛ: OFF)
Q2204 2SD601 (SWITCHING)
Q2205 2SD601 (INV.)
Q2206 2SD601 (AMP)
Q2209 2SD601 (AMP)
SERVO PACK C.B.A. (VEP02325B)
IC202 MN4066B μPD4066BC RZ4066BD
Q201 2SD601 (AMP)
D201 MA165
D202 MA165
D203 MA165
D204 MA165
QR201 UN2213 (COS Ⓗ: ON)
IC201 LM358P AN6562 μPC358C
GND
VCC
1 VCC
2 P.B CTL
3 SP CTL
4 COS
5 GND
SUB SERVO PACK C.B.A. (VEP02334A)
15
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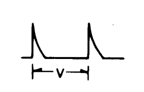
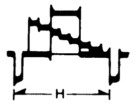
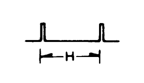
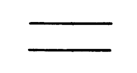
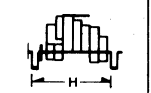
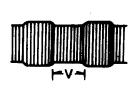
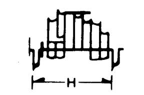
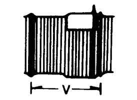
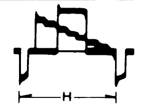
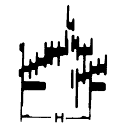
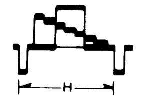
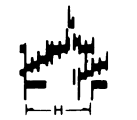
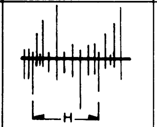
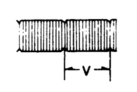
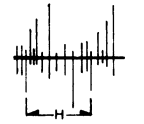
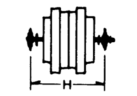
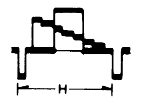
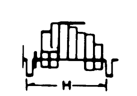
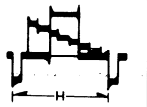
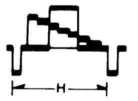
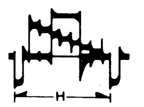
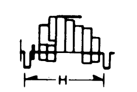
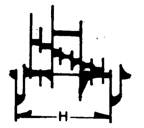
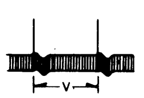
26

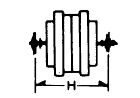
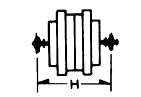
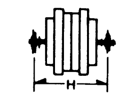
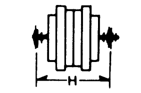
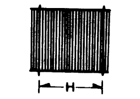
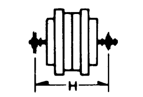
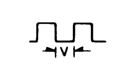
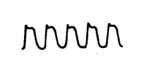
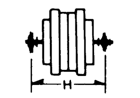
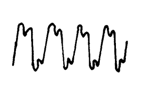
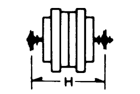
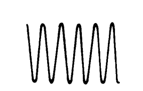
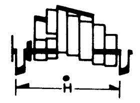
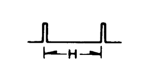
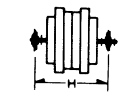
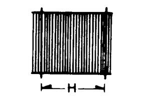
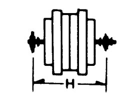
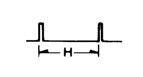
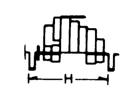
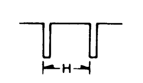
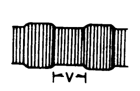
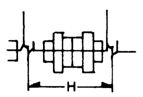
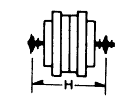
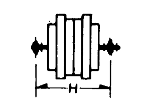
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

Next Page:
LUMINANCE & CHROMINANCE Section

IC301 (VEFH03D)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	 1.8Vp-p (REC/P.B)	17	 0.8Vp-p (REC/P.B)
2	 4.4Vp-p (REC/P.B)	22	 1.2Vp-p (REC)
3	 1.0Vp-p (REC/P.B)	23	 1.4Vp-p (P.B)
5	 0.9Vp-p (REC)	26	 0.9Vp-p (P.B)
5	 1.2Vp-p (P.B)	28	 0.5Vp-p (P.B)
7, 8	 0.44Vp-p (REC) 0.5Vp-p (P.B)	30	 1.4Vp-p (P.B)
9	 0.62Vp-p (REC)	33	 0.15Vp-p (P.B)
10	 0.58Vp-p (REC)	35	 0.38Vp-p (P.B)
11	 0.28Vp-p (REC) 0.34Vp-p (P.B)	37, 38	 0.8Vp-p (REC)
13	 0.9Vp-p (REC) 1.0Vp-p (P.B)	37, 38	 0.86Vp-p (P.B)
15	 0.9Vp-p (REC/P.B)	40	 2.1Vp-p (REC/P.B)
16	 0.64Vp-p (REC/P.B)	41	 0.52Vp-p (REC) 0.6Vp-p (P.B)

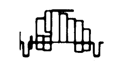
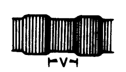
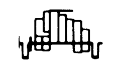
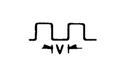
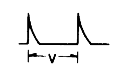
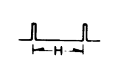
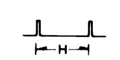
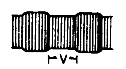
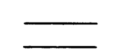
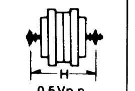
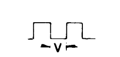
IC801 (VEFH04A)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	 0.16Vp-p (REC) 0.12Vp-p (P.B)	15	 0.48Vp-p (REC)
3	 0.9Vp-p (REC) 0.7Vp-p (P.B)	17	 0.44Vp-p (REC) 0.24Vp-p (P.B)
5	 0.22Vp-p (REC) 0.18Vp-p (P.B)	19	 0.26Vp-p (REC) 0.2Vp-p (P.B)
6	 5.0Vp-p (REC/P.B)	28	 0.8Vp-p (REC/P.B)
7	 0.6Vp-p (REC) 0.42Vp-p (P.B)	29	 1.1Vp-p (REC/P.B)
9	 0.42Vp-p (REC) 0.24Vp-p (P.B)	31	 0.8Vp-p (REC/P.B)
10	 1.1Vp-p (REC)	32	 4.6Vp-p (REC/P.B)
10	 1.0Vp-p (P.B)	33	 0.64Vp-p (REC/P.B)
11	 0.4Vp-p (REC) 0.2Vp-p (P.B)	34	 5.0Vp-p (REC/P.B)
12	 1.0Vp-p (REC/P.B)	35	 5.0Vp-p (REC/P.B)
13	 0.25Vp-p (P.B)	37	 0.21Vp-p (P.B)
14	 0.32Vp-p (REC) 0.17Vp-p (P.B)	38	 1.1Vp-p (P.B)

3-16. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM

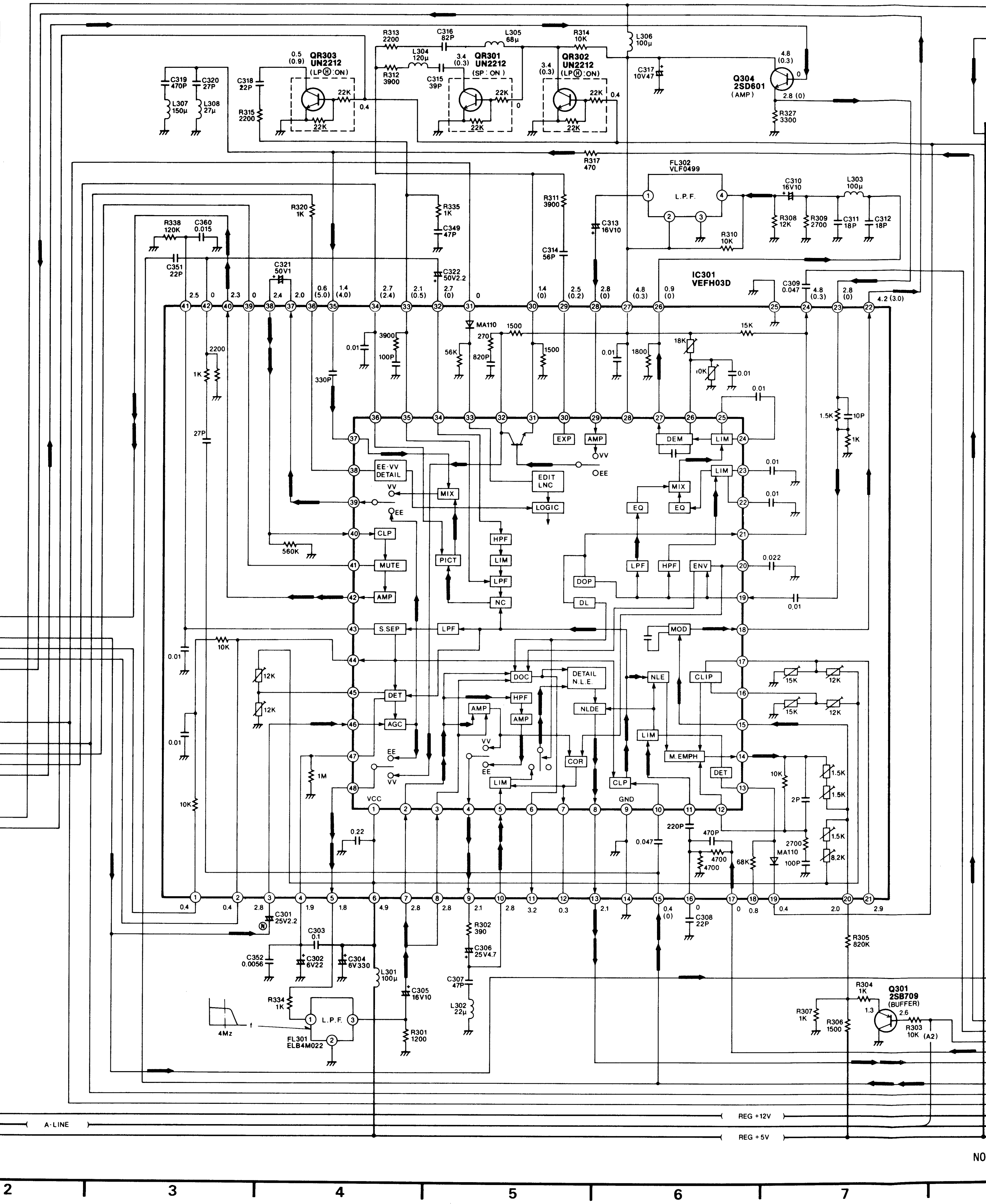
◀━━━ MAIN SIG
◀■■■ 5.06MHz P

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	 2.1Vp-p (REC/P.B)	18	 1.1Vp-p (P.B)
3	 1.0Vp-p (REC/P.B)	19	 5.0Vp-p (REC/P.B)
4	 1.8Vp-p (REC/P.B)	20	 4.6Vp-p (REC/P.B)
5	 4.4Vp-p (REC/P.B)	32	 0.25Vp-p (P.B)
6	 1.2Vp-p (REC)	34	 0.5Vp-p (REC)
12	 5.0Vp-p (REC/P.B)		

PACK PIN (TO LUMINANCE & CHROMINANCE)

VIDEO OUT	1	2.3	
GND	2		
VIDEO IN	3	7.0	
VSS	4	0.4	
HSS	5	0.4	
REC Y	6	4.3	
LP· SSS Ⓛ	7	3.5	A1
REG 5V	8	5.0	
REG 12.3V	9	12.2	
HEAD SW	12	2.6	A2
EDIT Ⓗ	13	0	
GND	14		
EE Ⓗ	15	0.6(5.0)	
ART V/H/N	16	0	
PICTURE CONT	17	2.8 (2.4)	
RF Y	18	3.3 (0.3)	
ROTARY SW	19	2.5	A3
HSS	20	0.4	A4
—	21		
PLAY 5V	22	4.9 (0)	
LP Ⓗ	23	0.4	
—	29	0	A5
GND	30		
—	31	0.4	A6
RF CHROMA	32	2.2 (0.1)	A7
TRICK Ⓛ	33	4.9(0.3)	A8
REC C	34	2.3(0.4)	A9

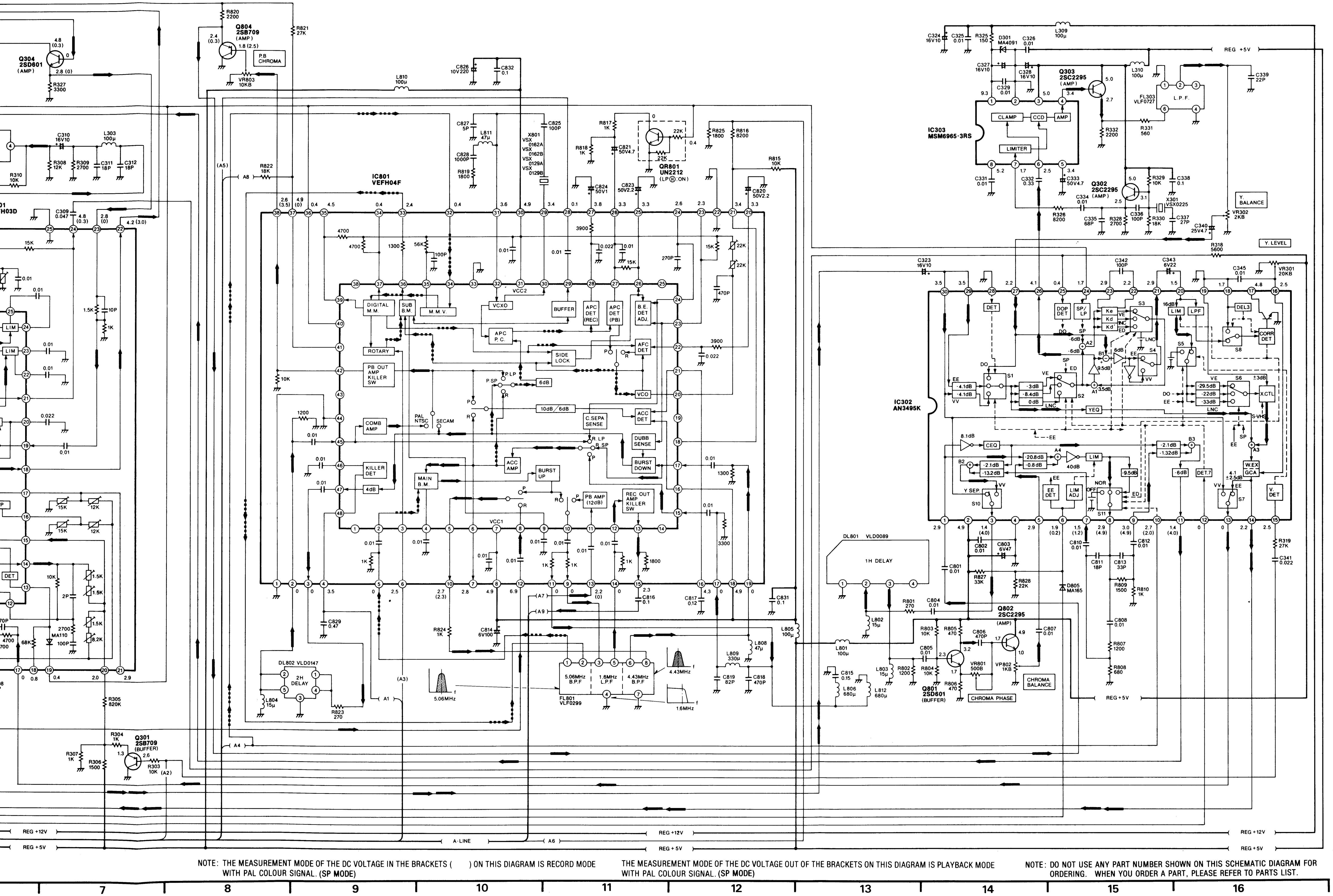

G
F
E
D
C
B
A
1
2
3
4
5
6
7
Q304 2SD601 (AMP)
R327 3300
L306 100μ
C317 10V47
R313 2200
C316 82P
L305 68μ
R314 10K
QR303 UN2212 (LP Ⓗ :ON)
QR301 UN2212 (SP : ON)
QR302 UN2212 (LP Ⓛ :ON)
L304 120μ
R312 3900
C315 39P
C319 470P
C320 27P
C318 22P
L307 150μ
L308 27μ
R315 2200
R317 470
FL302 VLF0499
L.P.F.
C310 16V10
L303 100μ
R308 12K
R309 2700
C311 18P
C312 18P
R310 10K
R311 3900
C313 16V10
C314 56P
R320 1K
R335 1K
C349 47P
R338 120K
C360 0.015
C351 22P
C321 50V1
C322 50V2.2
IC301 VEFH03D
C309 0.047
MA110
EXP
AMP
DEM
LIM
EE·VV DETAIL
MIX
EDIT LNC
LOGIC
EQ
CLP
MUTE
S.SEP
LPF
HPF
NC
PICT
DOP
DL
MOD
DOC
DETAIL N.L.E
NLE
CLIP
DET
AGC
NLDE
COR
M.EMPH
VCC
GND
VV
EE
C301 25V2.2
C303 0.1
C302 6V22
C304 6V330
C352 0.0056
L301 100μ
C305 16V10
R302 390
C306 25V4.7
C307 47P
L302 22μ
R301 1200
R334 1K
FL301 ELB4M022
4Mz
C308 22P
R305 820K
R304 1K
Q301 2SB709 (BUFFER)
R307 1K
R306 1500
R303 10K (A2)
A-LINE
REG +12V
REG +5V
NO

MAIN SIGNAL PATH IN PLAYBACK MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

MAIN SIGNAL PATH IN REC MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE



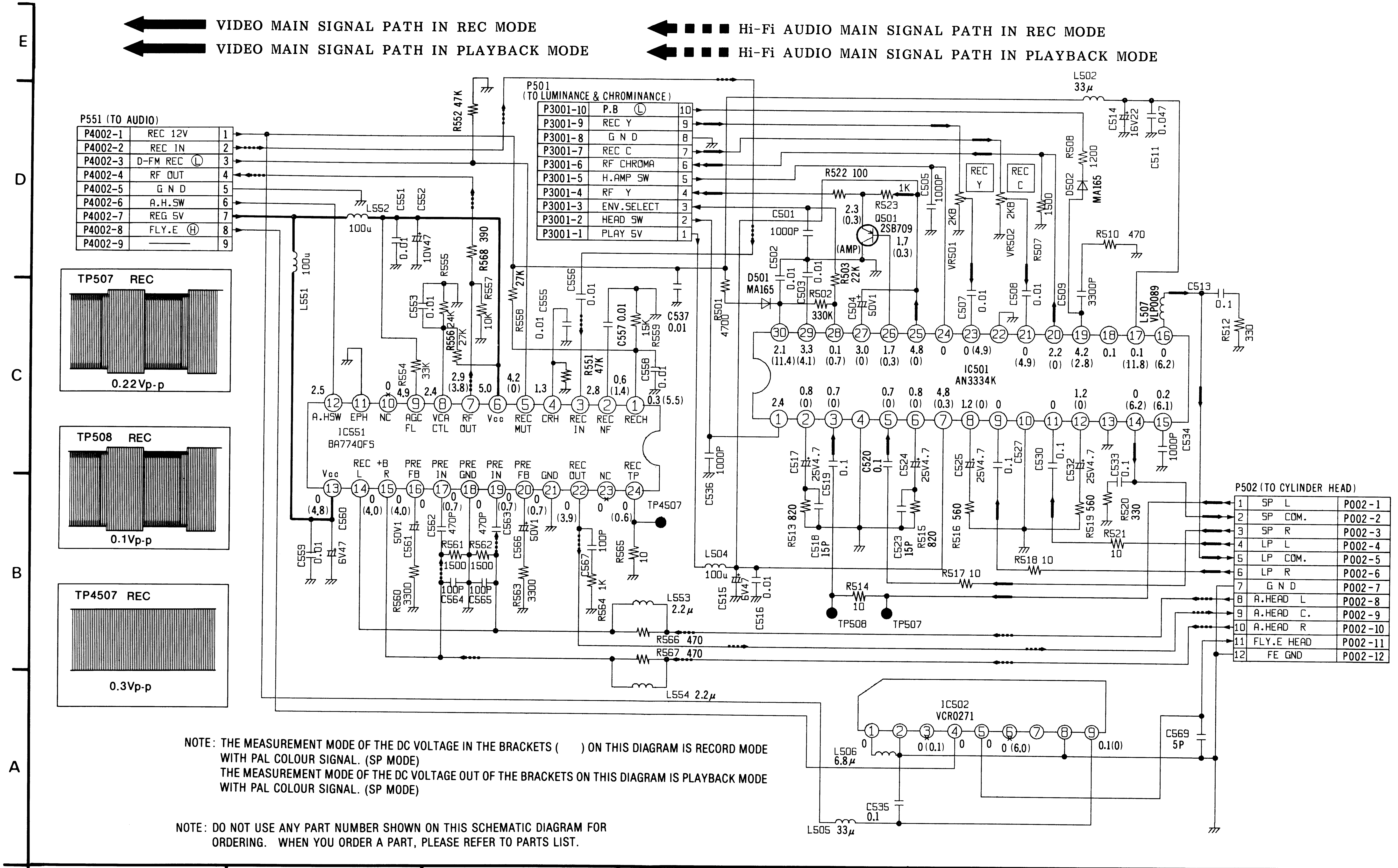
Q304 2SD601 (AMP)
R327 3300
Q804 2SB709 (AMP)
R820 2200
R821 27K
PB CHROMA
VR803 10KB
L810 100µ
C826 10V220
C832 0.1
C310 16V10
L303 100µ
R308 12K
R309 2700
C311 18P
C312 18P
R310 10K
C309 0.047
R822 18K
IC801 VEFH04F
X801 VSX 0162A VSX 0162B VSX 0129A VSX 0129B
C827 5P
L811 47µ
C828 1000P
R819 1800
C825 100P
R817 1K
R818 1K
C821 50V4.7
QR801 UN2212 (LP Ⓗ: ON)
C824 50V1
C823 50V2.2
R825 1800
R816 8200
R815 10K
C820 50V2.2
DIGITAL M.M.
SUB B.M.
M.M.V.
VCXO
BUFFER
APC DET (REC)
APC DET (PB)
B.E. DET ADJ.
APC P.C.
SIDE LOCK
AFC DET
ROTARY
PB OUT AMP KILLER SW
VCO
10dB / 6dB
6dB
C.SEPA SENSE
ACC DET
COMB AMP
PAL NTSC
SECAM
DUBB SENSE
ACC AMP
BURST UP
BURST DOWN
KILLER DET
4dB
MAIN B.M.
PB AMP (12dB)
REC OUT AMP KILLER SW
VCC1
VCC2
DL802 VLD0147
2H DELAY
L804 15µ
R823 270
5.06MHz
4.43MHz
1.6MHz
FL801 VLF0299
5.06MHz B.P.F
1.6MHz L.P.F
4.43MHz B.P.F
C829 0.47
R824 1K
C814 6V100
C816 0.1
C817 0.12
L809 330µ
C819 82P
L808 47µ
C818 470P
C831 0.1
L805 100µ
R305 820K
R304 1K
Q301 2SB709 (BUFFER)
R303 10K
R306 1500
R307 1K
MA110
DL801 VLD0089
1H DELAY
L802 15µ
L801 100µ
C815 0.15
L806 680µ
L803 15µ
L812 680µ
R801 270
C804 0.01
R802 1200
R803 10K
R805 470
C806 470P
C805 0.01
R804 10K
R806 470
VR801 500B
VP802 1KB
Q802 2SC2295 (AMP)
Q801 2SD601 (BUFFER)
C807 0.01
CHROMA PHASE
CHROMA BALANCE
C801 0.01
C802 0.01
C803 6V47
R827 33K
R828 22K
D805 MA165
C324 16V10
C325 0.01
R325 150
D301 MA4091
C326 0.01
L309 100µ
REG +5V
C327 16V10
C328 16V10
C329 0.01
Q303 2SC2295 (AMP)
L310 100µ
FL303 VLF0727
L.P.F.
C339 22P
CLAMP
CCD
AMP
LIMITER
IC303 MSM6965-3RS
R332 2200
R331 560
C331 0.01
C332 0.33
C333 50V4.7
Q302 2SC2295 (AMP)
R329 10K
C338 0.1
C334 0.01
X301 VSX0225
R326 8200
C335 68P
R328 2700
C336 100P
R330 18K
C337 27P
C340 25V4.7
Y. BALANCE
VR302 2KB
R318 5600
Y. LEVEL
C323 16V10
C342 100P
C343 6V22
C345 0.01
VR301 20KB
IC302 AN3495K
DET
DOP DET
SP/LP
Ke Kd Kd'
S3
LIM
LPF
DEL3
CORR DET
S8
S5
S4
S1
S2
S6
XCTL
YEQ
CEQ
LIM ADJ
NOR
S11
S10
Y SEP
W.EX GCA
V. DET
S7
DET.7
EE DET
R319 27K
C341 0.022
C810 0.01
C811 18P
C813 33P
C812 0.01
R809 1500
R810 1K
C808 0.01
R807 1200
R808 680
REG +12V
REG +5V
A-LINE
A1 A2 A3 A4 A5 A6 A7 A8 A9
7 8 9 10 11 12 13 14 15 16

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-17. HEAD AMP SCHEMATIC DIAGRAM



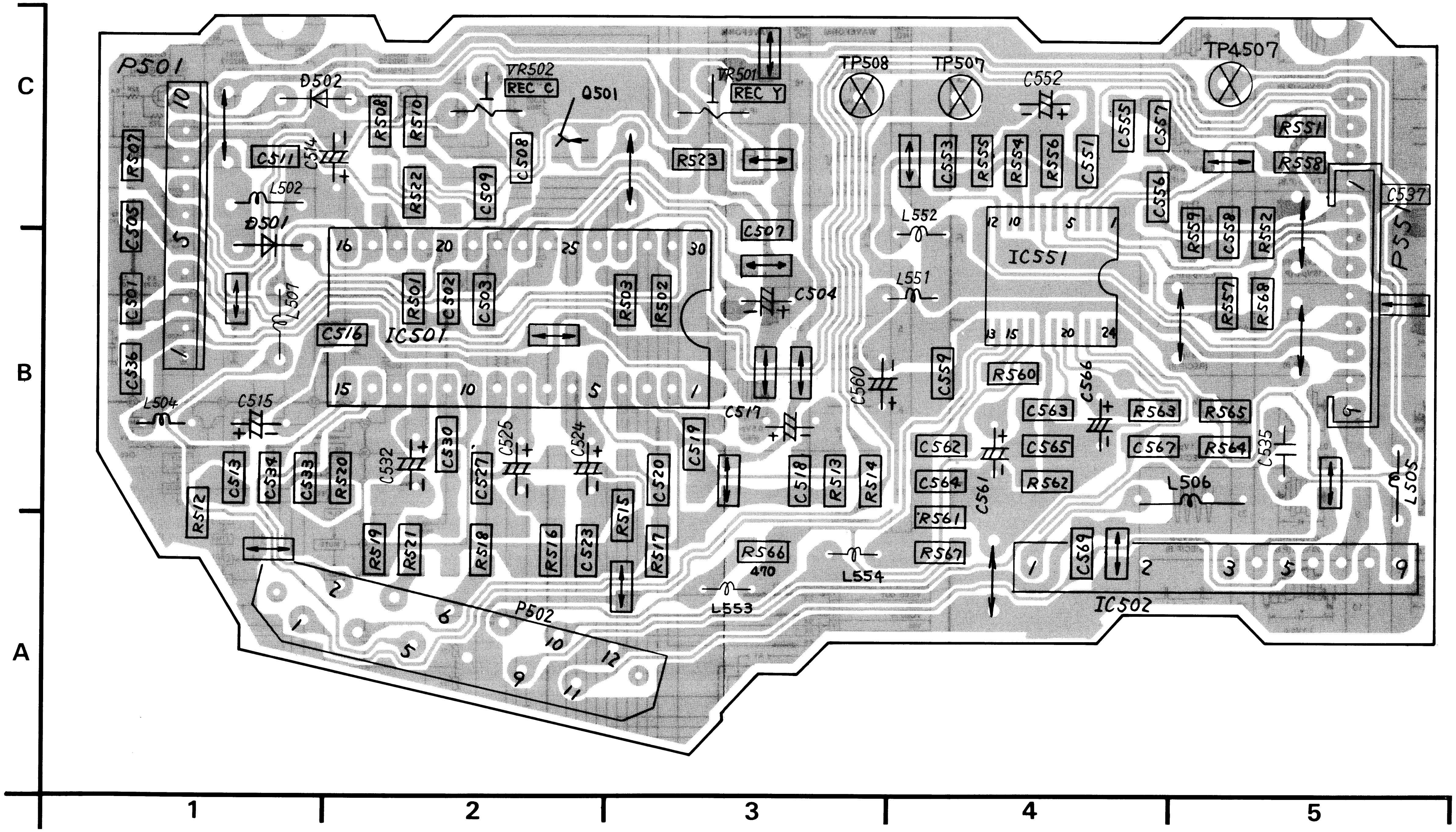
VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
Hi-Fi AUDIO MAIN SIGNAL PATH IN REC MODE
Hi-Fi AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
P551 (TO AUDIO)
P4002-1 REC 12V 1
P4002-2 REC IN 2
P4002-3 D-FM REC Ⓛ 3
P4002-4 RF OUT 4
P4002-5 G N D 5
P4002-6 A.H.SW 6
P4002-7 REG 5V 7
P4002-8 FLY.E Ⓗ 8
P4002-9 9
P501 (TO LUMINANCE & CHROMINANCE)
P3001-10 P.B Ⓛ 10
P3001-9 REC Y 9
P3001-8 G N D 8
P3001-7 REC C 7
P3001-6 RF CHROMA 6
P3001-5 H.AMP SW 5
P3001-4 RF Y 4
P3001-3 ENV.SELECT 3
P3001-2 HEAD SW 2
P3001-1 PLAY 5V 1
TP507 REC
0.22Vp-p
TP508 REC
0.1Vp-p
TP4507 REC
0.3Vp-p
IC551 BA7740FS
A.HSW EPH NC AGC FL VCA CTL RF OUT Vcc REC MUT CRH REC IN REC NF RECH
Vcc REC L +B R PRE FB PRE IN PRE GND PRE IN PRE FB GND REC OUT NC REC TP
IC501 AN3334K
IC502 VCR0271
Q501 2SB709 (AMP)
D501 MA165
D502 MA165
R552 47K
L552 100u
L551 100u
C551 0.01
C552 10V47
R568 390
R555
R557 10K
R556 24K 27K
R554 33K
C553 0.01
R558 27K
C555 0.01
C556 0.01
C557 0.01
R559 15K
C537 0.01
R551 47K
C558 0.01
C559 0.01
C560 6V47
C561 50V1
C562 470P
C563 470P
C566 50V1
R561 1500
R562 1500
C564 100P
C565 100P
R560 3300
R563 3300
C567 100P
R564 1K
R565 10
TP4507
L553 2.2μ
L554 2.2μ
R566 470
R567 470
R522 100
R523 1K
C505 1000P
C501 1000P
C502 0.01
C503 0.01
R502 330K
R503 22K
C504 50V1
R501 4700
VR501 2KB
VR502 2KB
REC Y
REC C
R507 1500
R508 1200
C507 0.01
C508 0.01
C509 3300P
R510 470
L502 33μ
C514 16V22
C511 0.047
L507 VLP0089
C513 0.1
R512 330
C536 1000P
C534 1000P
L504 100u
C515 6V47
C516 0.01
C517 25V4.7
C519 0.1
C520 0.1
C524 25V4.7
C525 25V4.7
C527 0.1
C530 0.1
C532 25V4.7
C533 0.1
R513 820
C518 15P
C523 15P
R515 820
R516 560
R519 560
R520 330
R521 10
R518 10
R517 10
R514 10
TP508
TP507
L506 6.8μ
L505 33μ
C535 0.1
C569 5P
P502 (TO CYLINDER HEAD)
1 SP L P002-1
2 SP COM. P002-2
3 SP R P002-3
4 LP L P002-4
5 LP COM. P002-5
6 LP R P002-6
7 G N D P002-7
8 A.HEAD L P002-8
9 A.HEAD C. P002-9
10 A.HEAD R P002-10
11 FLY.E HEAD P002-11
12 FE GND P002-12
E
D
C
B
A
1
2
3
4
5
6
7

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
LUMINANCE & CHROMINANCE Section

3-18. HEAD AMP C.B.A. (VEP05134B)



P501
D502
VR502
REC C
Q501
VR501
REC Y
TP508
TP507
C552
TP4507
R507
C505
C501
C536
C511
C514
L502
D501
L507
R508
R510
R522
C508
C509
R523
C507
C504
IC501
C516
R501
C502
C503
R503
R502
16
20
25
30
15
10
5
1
L504
C515
C513
C534
C533
R520
C532
C530
C526
C524
C527
C520
C519
C517
R512
R519
R521
R518
R516
C523
R515
R517
C518
R513
R514
R566
470
L554
L553
P502
1
2
5
6
9
10
11
12
L552
L551
C560
C559
R560
C566
C553
R555
R554
R556
C551
C555
C557
C556
IC551
12
10
5
1
13
15
20
24
R551
R558
C537
P551
R559
C558
R552
R557
R568
C562
C564
R561
R567
C561
C563
C565
R562
R563
R565
C567
R564
C535
L506
L505
C569
IC502
1
2
3
5
9
A
B
C
1
2
3
4
5

HEAD AMP C.B.A.	
Transistor	
Q501	C-2
Integrated Circuit	
IC501 IC502 IC551	B-2 A-4 B-4
Test Point	
TP507 TP508 TP4507	C-4 C-3 C-5
Adjustment	
VR501 VR502	C-3 C-2
Connector	
P501 P502 P551	C-1 A-2 B-5

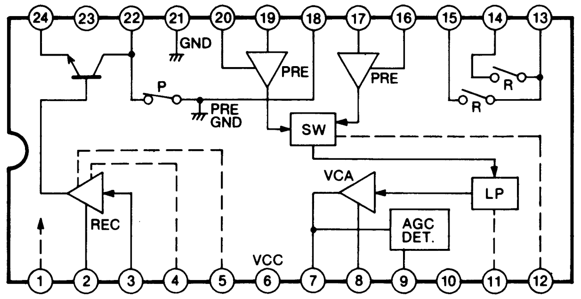
ADDRESS INFORMATION

O CYLINDER HEAD)

P L	P002-1
P COM.	P002-2
P R	P002-3
P L	P002-4
P COM.	P002-5
P R	P002-6
G N D	P002-7
HEAD L	P002-8
HEAD C.	P002-9
HEAD R	P002-10
.E HEAD	P002-11
FE GND	P002-12

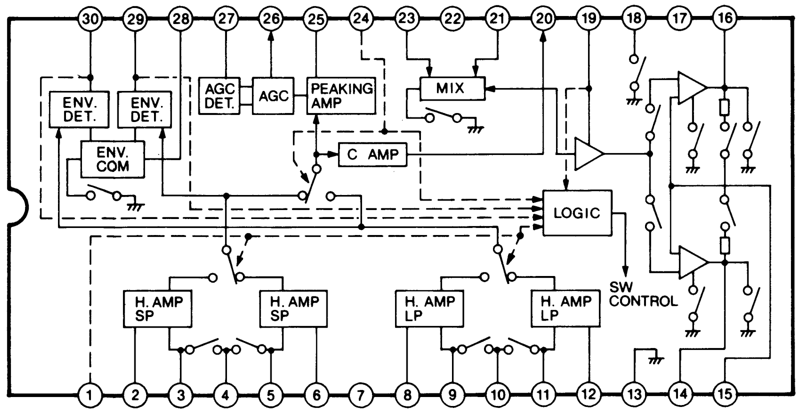
IC BLOCK

IC551 (BA7740FS)



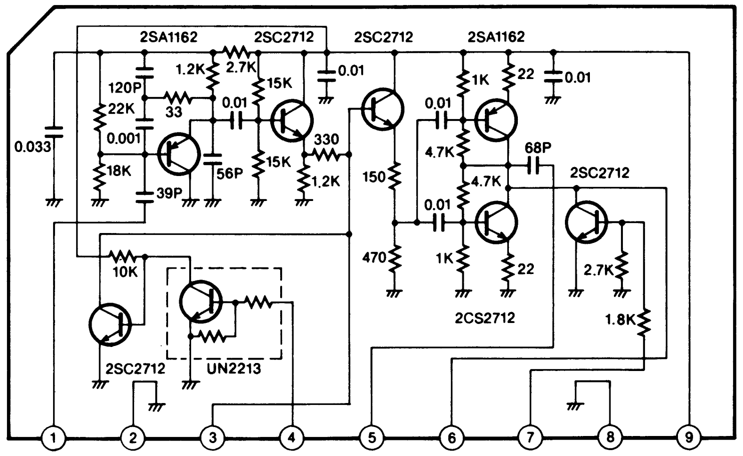
24
23
22
21
20
19
18
17
16
15
14
13
GND
P
PRE
PRE
PRE GND
R
R
SW
VCA
LP
REC
AGC DET.
VCC
1
2
3
4
5
6
7
8
9
10
11
12

IC501 (AN3334K)



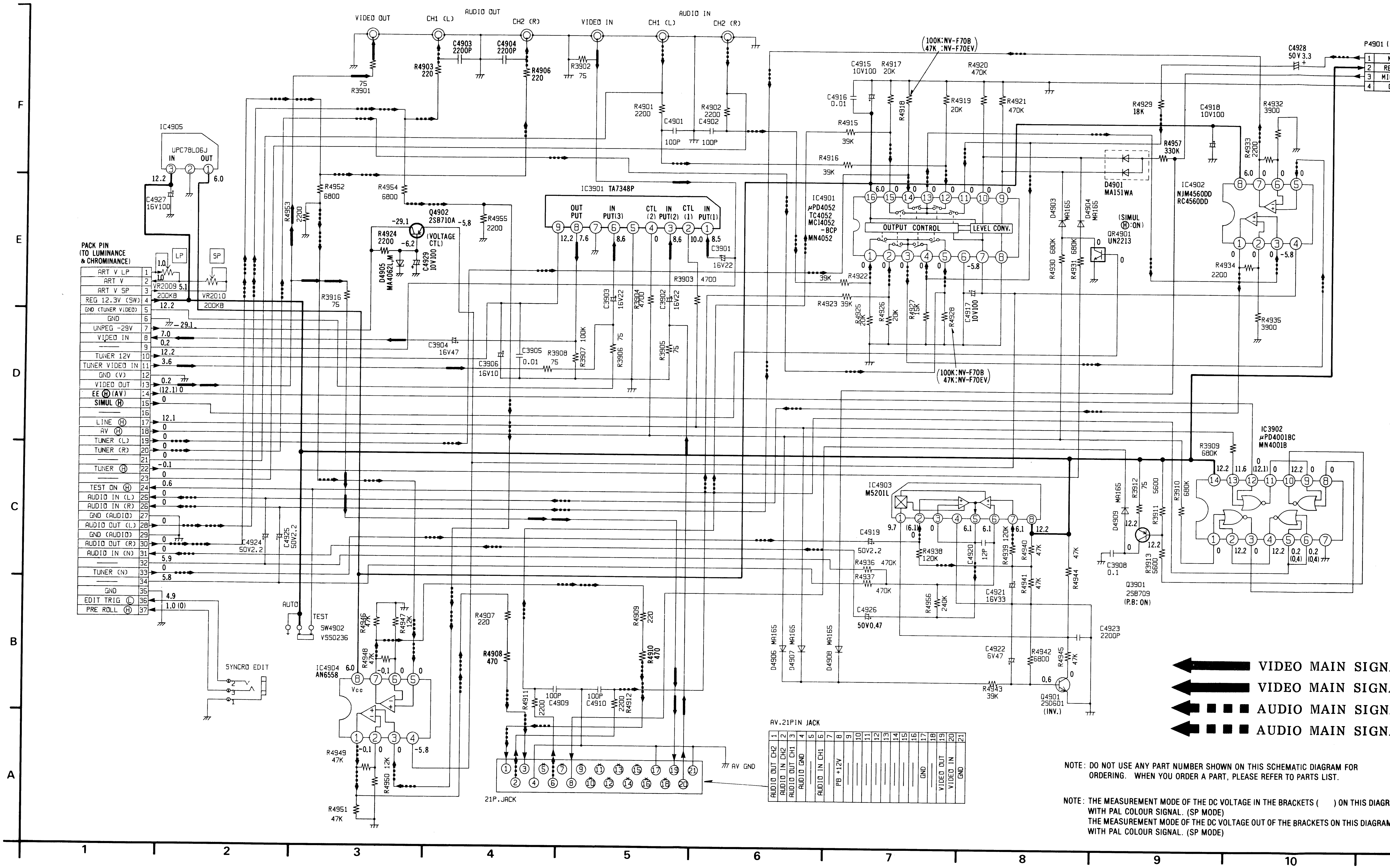
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
ENV. DET.
ENV. DET.
ENV. COM
AGC DET.
AGC
PEAKING AMP
MIX
C AMP
LOGIC
H. AMP SP
H. AMP SP
H. AMP LP
H. AMP LP
SW CONTROL
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

IC502 (VCR0271)



2SA1162
2SC2712
2SC2712
2SA1162
1.2K
2.7K
0.01
120P
22K
33
0.01
15K
0.01
1K
22
0.01
0.001
56P
15K
330
1.2K
0.033
18K
39P
150
4.7K
4.7K
68P
2SC2712
0.01
470
1K
22
2.7K
10K
1.8K
2SC2712
UN2213
2CS2712
1
2
3
4
5
6
7
8
9

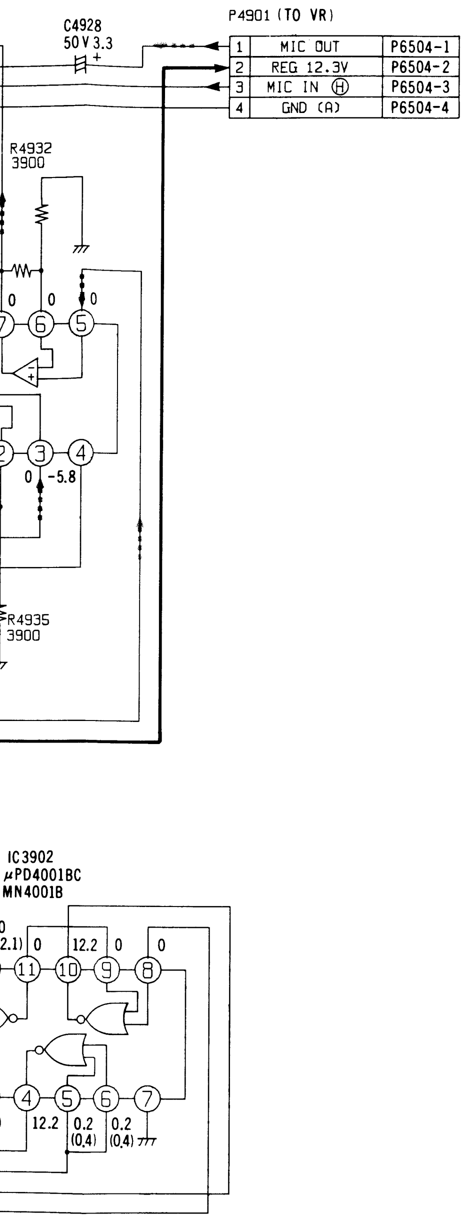
3-19. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM


VIDEO OUT
AUDIO OUT
CH1 (L)
CH2 (R)
VIDEO IN
AUDIO IN
IC4905
UPC78L06J
IN
OUT
PACK PIN (TO LUMINANCE & CHROMINANCE)
ART V LP
ART V
ART V SP
REG 12.3V (SW)
GND (TUNER VIDEO)
GND
UNREG -29V
VIDEO IN
TUNER 12V
TUNER VIDEO IN
GND (V)
VIDEO OUT
EE Ⓗ (AV)
SIMUL Ⓗ
LINE Ⓗ
AV Ⓗ
TUNER (L)
TUNER (R)
TUNER Ⓗ
TEST ON Ⓗ
AUDIO IN (L)
AUDIO IN (R)
GND (AUDIO)
AUDIO OUT (L)
GND (AUDIO)
AUDIO OUT (R)
AUDIO IN (N)
TUNER (N)
GND
EDIT TRIG Ⓛ
PRE ROLL Ⓗ
LP
SP
VR2009 200KB
VR2010 200KB
Q4902 2SB710A
(VOLTAGE CTL)
D4905 MA4062L,M
IC3901 TA7348P
OUT PUT
IN PUT(3)
CTL (2)
IN PUT(2)
CTL (1)
IN PUT(1)
(100K:NV-F70B / 47K:NV-F70EV)
IC4901 μPD4052 TC4052 MC14052-BCP MN4052
OUTPUT CONTROL
LEVEL CONV.
D4901 MA151WA
(SIMUL Ⓗ:ON)
QR4901 UN2213
IC4902 NJM4560DD RC4560DD
P4901
IC3902 μPD4001BC MN4001B
IC4903 M5201L
Q3901 2SB709 (P.B: ON)
Q4901 2SD601 (INV.)
AUTO
TEST
SW4902 VSS0236
SYNCRO EDIT
IC4904 AN6558
Vcc
21P.JACK
AV GND
AV.21PIN JACK
AUDIO OUT CH2
AUDIO IN CH2
AUDIO OUT CH1
AUDIO GND
AUDIO IN CH1
PB +12V
GND
VIDEO OUT
VIDEO IN
GND
VIDEO MAIN SIGN
VIDEO MAIN SIGN
AUDIO MAIN SIGN
AUDIO MAIN SIGN
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

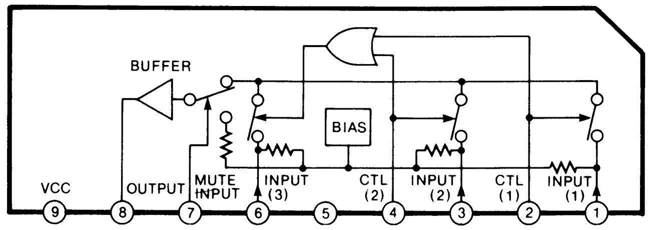
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGR
WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM
WITH PAL COLOUR SIGNAL. (SP MODE)

3-20. INPUT/OUTPUT PACK C.B.A. (VEP04253C: NV-F70B) (VEP04253B: NV-F70EV)

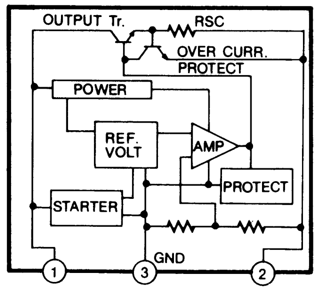

C4928
50V 3.3
P4901 (TO VR)
1 MIC OUT P6504-1
2 REG 12.3V P6504-2
3 MIC IN Ⓗ P6504-3
4 GND (A) P6504-4
R4932
3900
R4935
3900
-5.8
IC3902
µPD4001BC
MN4001B
12.2
(0.4)

IC BLOCK

IC3901 (TA7348P)


BUFFER
BIAS
VCC
OUTPUT
MUTE INPUT
INPUT (3)
CTL (2)
INPUT (2)
CTL (1)
INPUT (1)
9
8
7
6
5
4
3
2
1

IC4905 (µPC78L06J)


OUTPUT Tr.
RSC
OVER CURR. PROTECT
POWER
REF. VOLT
AMP
PROTECT
STARTER
GND
1
3
2

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

AUDIO MAIN SIGNAL PATH IN REC MODE

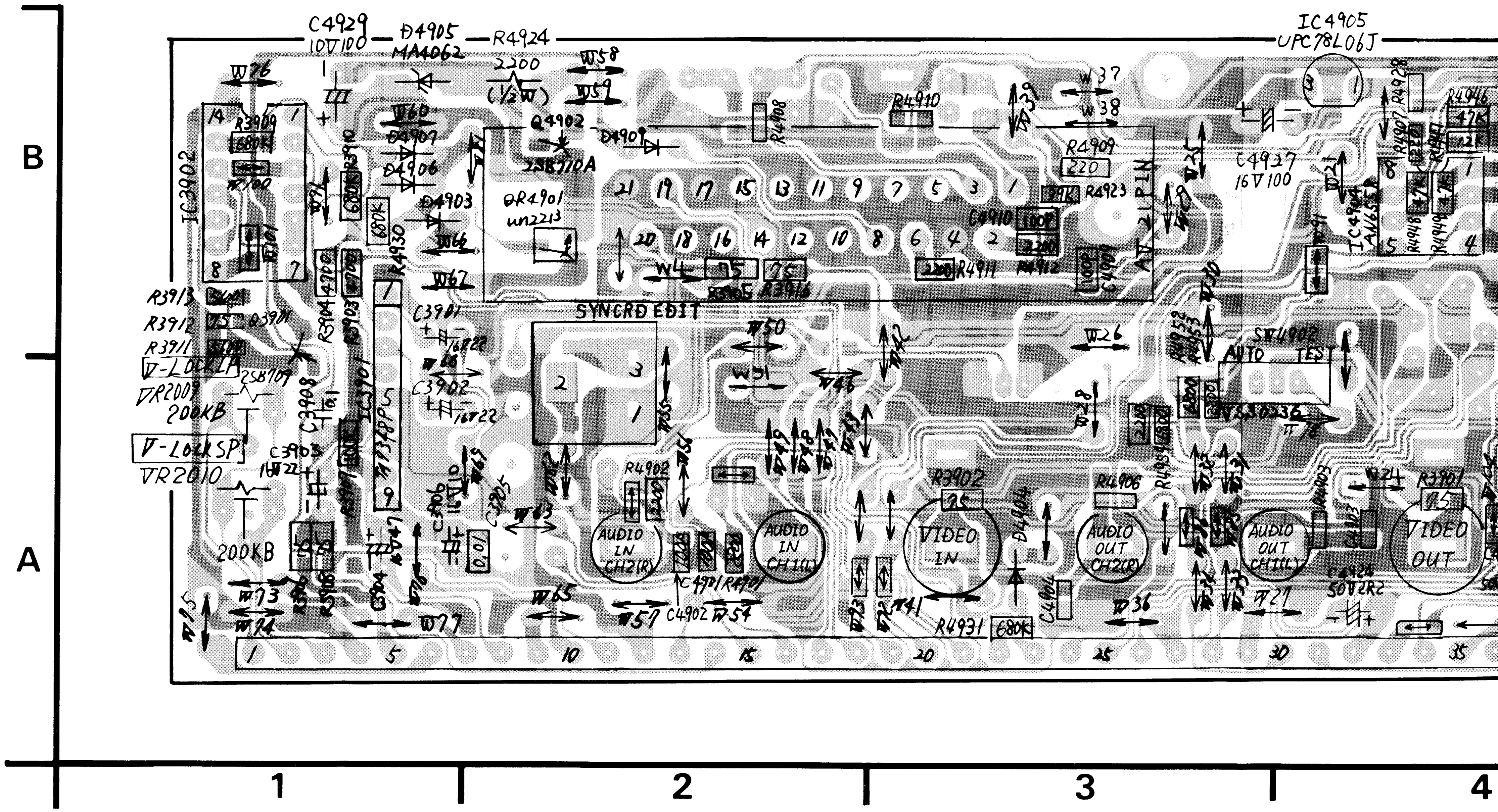
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

IS SCHEMATIC DIAGRAM FOR
E REFER TO PARTS LIST.

N THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE

UT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

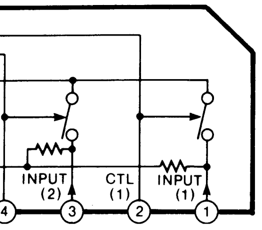
10 11

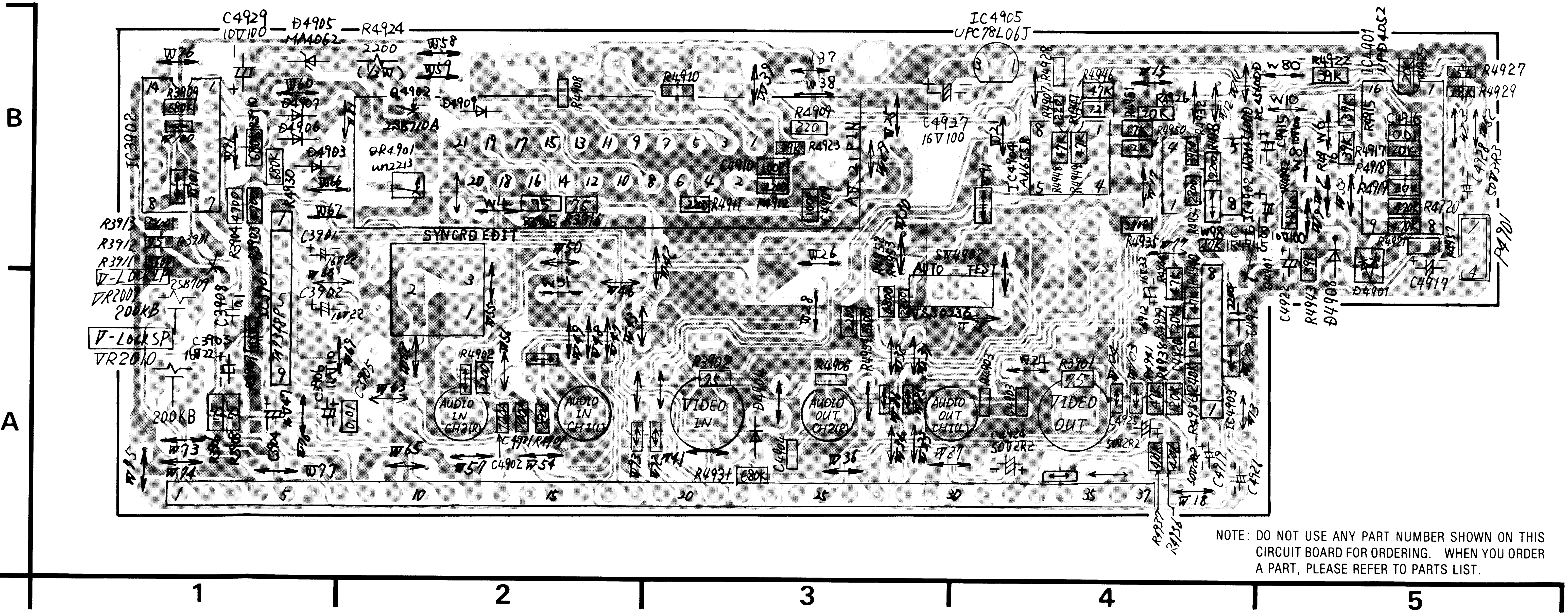

B
A
1
2
3
4
C4929
10V100
D4905
MA4062
R4924
2200 (1/2W)
W58
W59
W76
W60
D4907
D4906
D4903
Q4902
2SB710A
D4909
QR4901
UN2213
R4908
R4910
W39
W37
W38
R4909
220
R4923
C4910
R4911
R4912
C4927
16V100
AV 21PIN
IC4905
µPC78L06J
R4928
R4946
47K
R4907
R4941
IC4904
AN6551
R4948
R4949
IC3902
R3909
680K
W100
W101
R3910
R4930
680K
W66
W67
W4
R3905
R3916
R3913
R3912
R3911
Q3901
V-LOCK LP
VR2009
200KB
2SB709
C3908
R3904
R3903
IC3901
TA7348P
C3901
16V22
W68
C3902
16V22
SYNCRO EDIT
W50
W51
W46
W26
SW4902
AUTO TEST
VS30236
W78
V-LOCK SP
VR2010
200KB
C3903
16V22
C3906
C3905
W69
W63
R4902
C4901
R4901
AUDIO IN CH2(R)
AUDIO IN CH1(L)
VIDEO IN
D4904
R3902
R4906
AUDIO OUT CH2(R)
AUDIO OUT CH1(L)
R4903
C4903
R3901
VIDEO OUT
W24
C4424
50V2R2
W73
W74
W75
W77
W65
W57
C4902
W54
W41
R4931
680K
C4904
W36
W27
1
5
10
15
20
25
30
35

3-20. INPUT/OUTPUT PACK C.B.A. (VEP04253C: NV-F70B) (VEP04253B: NV-F70EV)

INPUT/OUTPUT PACK C.B.A.	
Transistor	
Q3901	B-1
Q4901	A-5
Q4902	B-2
Transistor & Resistor	
QR4901	B-2
Integrated Circuit	
IC3901	A-1
IC3902	B-1
IC4901	B-5
IC4902	B-4
IC4903	A-4
IC4904	B-4
IC4905	B-4
Adjustment	
VR2009	A-1
VR2010	A-1
Connector	
P4901	B-5

ADDRESS INFORMATION


INPUT (2)
CTL (1)
INPUT (1)
4
3
2
1


B
A
1
2
3
4
5
C4929 10V100
D4905 MA4062
R4924 2200 (1/2W)
W58
W59
W76
IC3902
R3909 680K
Q4902 2SB710A
D4909
D4907
D4906
D4903
QR4901 un2213
R4908
R4910
W37
W38
R4909 220
R4923 39K
C4910 100P
R4911
R4912
IC4905 UPC78L06J
C4927 16V100
IC4904 AN6552
R4928
R4946 47K
R4947
R4926 20K
R4950
IC4902 NJM4556MD
IC4901 UPD4052
R4922 39K
R4927 15K
R4929 18K
W80
W10
C4916
R4917
R4918
R4919
R4920
R4921
C4928 50V3R3
P4901
C4917
D4901
D4908
R4943
C4922
Q4901
C4918 16V100
R4945
W98
R4935
SW4902 AUTO TEST
VS830236
SYNCRO EDIT
W4
R3905
R3916
W50
W51
W46
W26
W62
W66
R4930
R3904
C3901 16V22
C3902 16V22
R3913
R3912
R3911
R3901
V-LOCK LP
VR2009 200KB
2SB709
C3908
IC3901 M73I8PL
V-LOCK SP
VR2010
C3903 16V22
200KB
R4902
AUDIO IN CH2(R)
AUDIO IN CH1(L)
R3902
VIDEO IN
D4904
R4906
AUDIO OUT CH2(R)
AUDIO OUT CH1(L)
R3901
VIDEO OUT
C4924 50V2R2
C4925
C4903
IC4903
C4919
C4921
C4912
W24
W27
W36
W41
W57
W63
W65
W73
W74
W75
W77
W18
C4901/R4901
C4902
C4904
R4931 680K
R4937
R4936
1
5
10
15
20
25
30
35
37

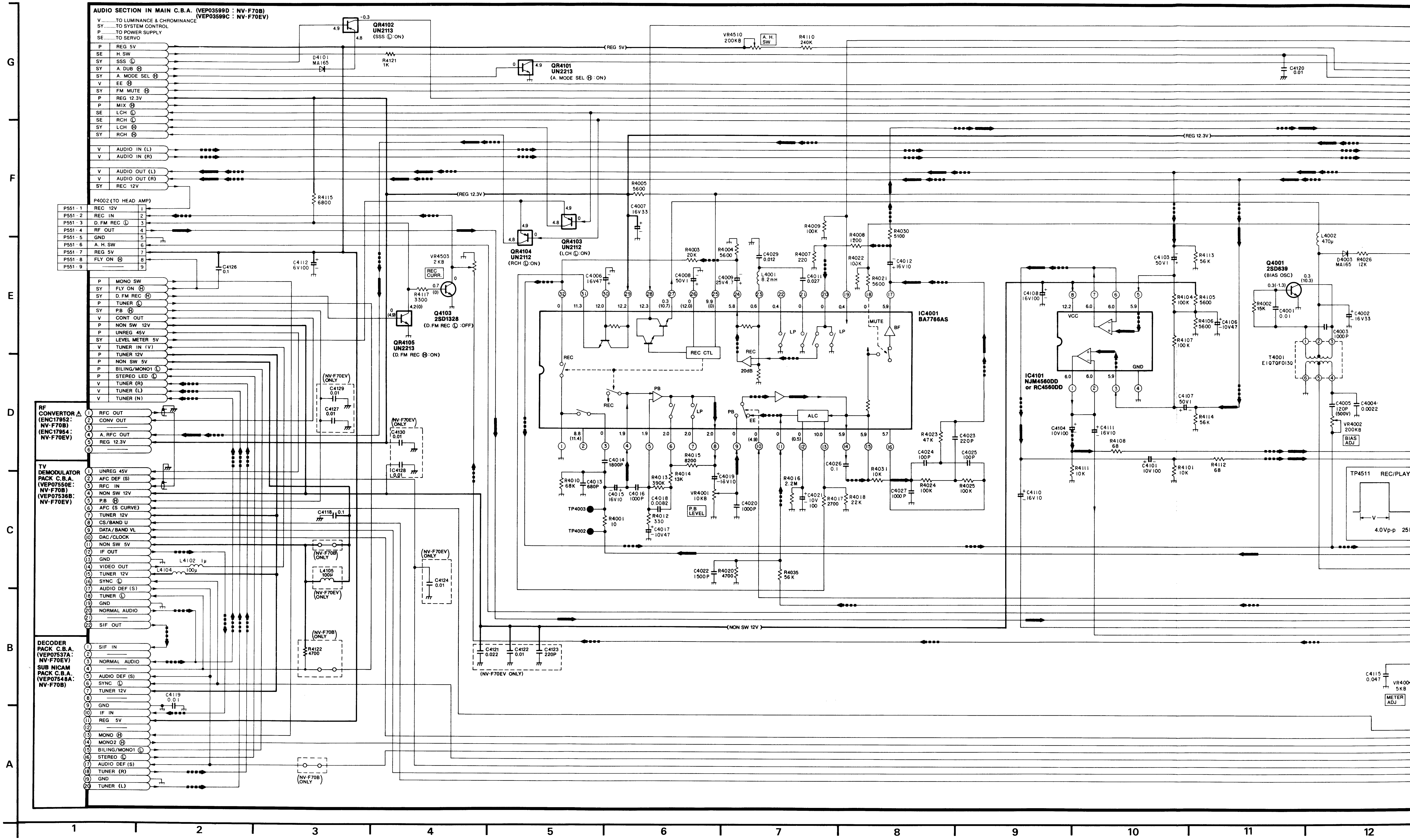
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
AUDIO & Hi-Fi AUDIO PACK Section

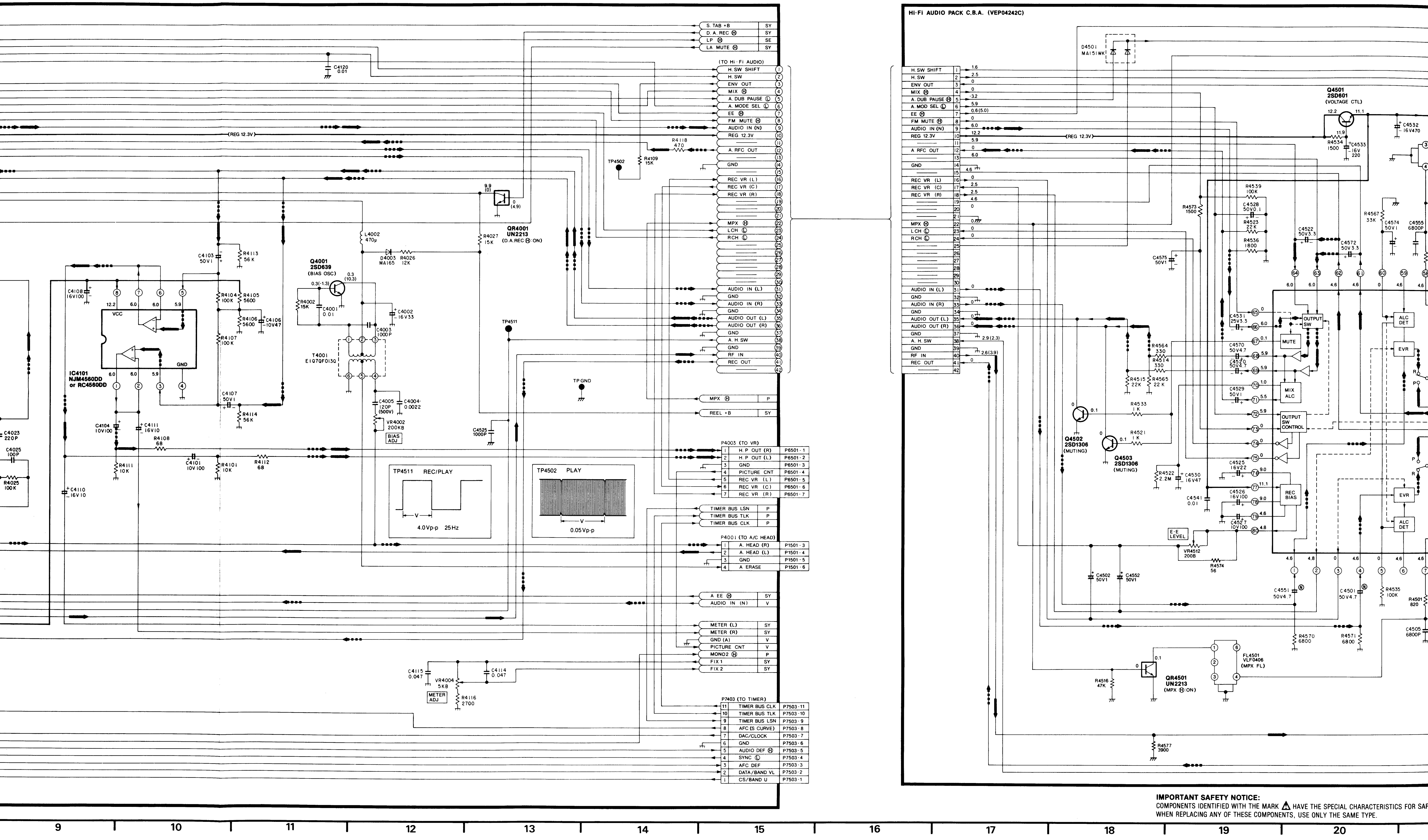
3-21. AUDIO & Hi-Fi AUDIO PACK SCHEMATIC DIAGRAM

◀■ ■ ■ ■ MAIN SIGNAL PATH IN REC MODE

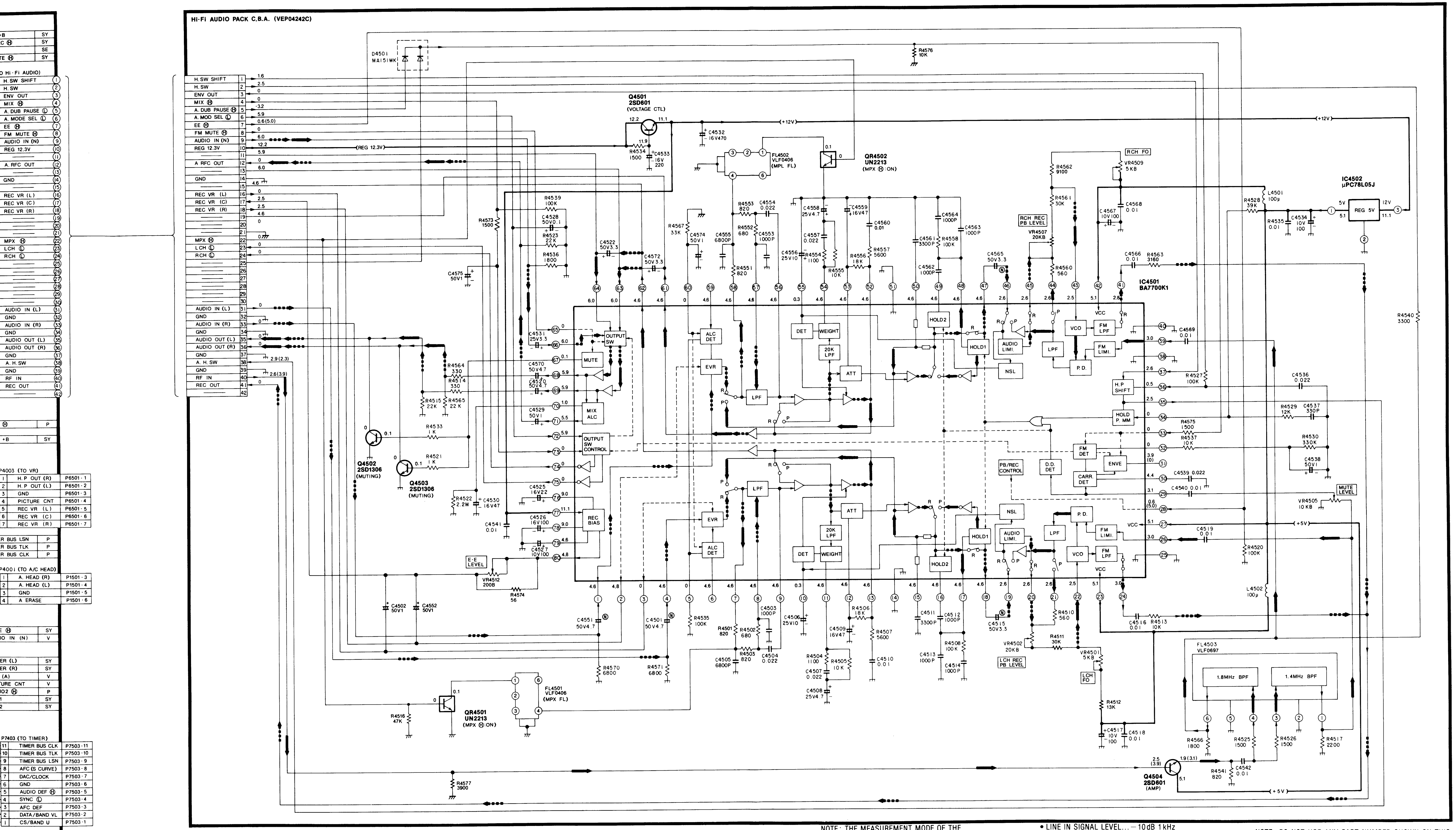
◀━━━━ MAIN SIGNAL PATH IN PLAYBACK MODE


AUDIO SECTION IN MAIN C.B.A. (VEP03599D : NV-F70B) (VEP03599C : NV-F70EV)
V ....TO LUMINANCE & CHROMINANCE
SY ......TO SYSTEM CONTROL
P ....TO POWER SUPPLY
SE ......TO SERVO
REG 5V
H. SW
SSS Ⓛ
A. DUB Ⓗ
A. MODE SEL Ⓗ
EE Ⓗ
FM MUTE Ⓗ
REG 12.3V
MIX Ⓗ
LCH Ⓛ
RCH Ⓛ
LCH Ⓗ
RCH Ⓗ
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
REC 12V
P4002 (TO HEAD AMP)
REC IN
D. FM REC Ⓛ
RF OUT
GND
A. H. SW
REG 5V
FLY ON Ⓗ
MONO SW
FLY ON Ⓗ
D. FM REC Ⓗ
TUNER Ⓛ
P.B Ⓗ
CONT OUT
NON SW 12V
UNREG 45V
LEVEL METER 5V
TUNER IN (V)
TUNER 12V
NON SW 5V
BILING/MONO1 Ⓛ
STEREO LED Ⓛ
TUNER (R)
TUNER (L)
TUNER (N)
RF CONVERTOR ⚠ (ENC17952: NV-F70B) (ENC17954: NV-F70EV)
RFC OUT
CONV OUT
A. RFC OUT
REG 12.3V
TV DEMODULATOR PACK C.B.A. (VEP07550E: NV-F70B) (VEP07536B: NV-F70EV)
UNREG 45V
AFC DEF (S)
RFC IN
NON SW 12V
P.B Ⓗ
AFC (S CURVE)
TUNER 12V
CS/BAND U
DATA/BAND VL
DAC/CLOCK
NON SW 5V
IF OUT
GND
VIDEO OUT
TUNER 12V
SYNC Ⓛ
AUDIO DEF (S)
TUNER Ⓛ
NORMAL AUDIO
SIF OUT
DECODER PACK C.B.A. (VEP07537A: NV-F70EV)
SUB NICAM PACK C.B.A. (VEP07548A: NV-F70B)
SIF IN
NORMAL AUDIO
AUDIO DEF (S)
SYNC Ⓛ
TUNER 12V
GND
IF IN
REG 5V
MONO Ⓗ
MONO2 Ⓗ
BILING/MONO1 Ⓛ
STEREO Ⓛ
AUDIO DEF (S)
TUNER (R)
GND
TUNER (L)
QR4102 UN2113 (SSS Ⓛ:ON)
QR4101 UN2213 (A. MODE SEL Ⓗ:ON)
D4101 MA165
R4121 1K
R4115 6800
QR4103 UN2112 (LCH Ⓛ:ON)
QR4104 UN2112 (RCH Ⓛ:ON)
QR4105 UN2213 (D.FM REC Ⓗ:ON)
Q4103 2SD1328 (D.FM REC Ⓛ:OFF)
VR4503 2KB REC CURR.
R4117 3300
C4126 0.1
C4112 6V100
(NV-F70EV) ONLY
C4129 0.01
C4127 0.01
C4130 0.01
C4128 0.01
C4118 0.1
L4102 1μ
L4104 100μ
L4105 100μ
C4124 0.01
R4122 4700
C4119 0.01
C4121 0.022
C4122 0.01
C4123 220P
(NV-F70EV ONLY)
(NV-F70B) ONLY
(REG 5V)
(REG 12.3V)
(NON SW 12V)
VR4510 200KB A. H. SW
R4110 240K
C4120 0.01
R4005 5600
C4007 16V33
IC4001 BA7766AS
REC CTL
MUTE
BF
ALC
LP
REC
PB
EE
20dB
R4003 20K
R4004 5600
C4029 0.012
R4009 100K
R4008 1200
R4030 5100
R4007 220
C4011 0.027
R4022 100K
R4021 5600
C4012 16V10
C4006 16V47
C4008 50V1
C4009 25V4.7
L4001 8.2mH
R4010 68K
C4013 680P
C4014 1800P
C4015 16V10
C4016 1000P
R4013 390K
R4014 13K
C4018 0.0082
R4012 330
C4017 10V47
R4015 8200
C4019 16V10
VR4001 10KB P.B LEVEL
C4020 1000P
R4001 10
TP4003
TP4002
R4016 2.2M
C4021 10V 100
R4017 2700
R4018 22K
C4026 0.1
R4031 10K
R4023 47K
C4023 220P
C4024 100P
C4025 100P
R4024 100K
R4025 100K
C4027 1000P
C4022 1500P
R4020 4700
R4035 56K
IC4101 NJM4560DD or RC4560DD
VCC
GND
C4108 16V100
C4103 50V1
R4113 56K
R4104 100K
R4105 5600
R4106 5600
C4106 10V47
R4107 100K
C4107 50V1
R4114 56K
C4104 10V100
C4111 16V10
R4108 68
R4111 10K
C4101 10V100
R4101 10K
R4112 68
C4110 16V10
L4002 470μ
D4003 MA165
R4026 12K
Q4001 2SD639 (BIAS OSC)
R4002 15K
C4001 0.01
C4002 16V33
C4003 1000P
T4001 E1Q7QF0130
C4005 120P (500V)
C4004 0.0022
VR4002 200KB BIAS ADJ
TP4511 REC/PLAY
4.0Vp-p
C4115 0.047
VR400 5KB METER ADJ
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

MAIN SIGNAL PATH IN PLAYBACK MODE


HI-FI AUDIO PACK C.B.A. (VEP04242C)
(TO Hi-Fi AUDIO)
S. TAB +B
D. A. REC Ⓗ
LP Ⓗ
LA MUTE Ⓗ
H.SW SHIFT
H.SW
ENV OUT
MIX Ⓗ
A. DUB PAUSE Ⓛ
A. MODE SEL Ⓛ
EE Ⓗ
FM MUTE Ⓗ
AUDIO IN (N)
REG 12.3V
A. RFC OUT
GND
REC VR (L)
REC VR (C)
REC VR (R)
MPX Ⓗ
LCH Ⓛ
RCH Ⓛ
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
A. H. SW
RF IN
REC OUT
REEL +B
P4003 (TO VR)
H. P. OUT (R)
H. P. OUT (L)
PICTURE CNT
P4001 (TO A/C HEAD)
A. HEAD (R)
A. HEAD (L)
A. ERASE
A. EE Ⓗ
METER (L)
METER (R)
GND (A)
MONO2 Ⓗ
FIX 1
FIX 2
P7403 (TO TIMER)
TIMER BUS CLK
TIMER BUS TLK
TIMER BUS LSN
AFC (S CURVE)
DAC/CLOCK
AUDIO DEF Ⓗ
SYNC Ⓛ
AFC DEF
DATA/BAND VL
CS/BAND U
IC4101
NJM4560DD
or RC4560DD
Q4001
2SD639
(BIAS OSC)
QR4001
UN2213
(D.A.REC Ⓗ:ON)
T4001
E1Q70F0130
VR4002
200KB
BIAS ADJ
VR4004
5KB
METER ADJ
TP4511 REC/PLAY
4.0Vp-p 25Hz
TP4502 PLAY
0.05Vp-p
TP GND
Q4501
2SD601
(VOLTAGE CTL)
D4501
MA151WK
Q4502
2SD1306
(MUTING)
Q4503
2SD1306
(MUTING)
QR4501
UN2213
(MPX Ⓗ:ON)
FL4501
VLF0406
(MPX FL)
VR4512
200B
E-E LEVEL
OUTPUT SW
MUTE
MIX ALC
OUTPUT SW CONTROL
REC BIAS
ALC DET
EVR
(REG 12.3V)
9
10
11
12
13
14
15
16
17
18
19
20

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAF
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.


HI-FI AUDIO PACK C.B.A. (VEP04242C)
D4501 MA151WK
R4576 10K
Q4501 2SD601 (VOLTAGE CTL)
C4532 16V470
FL4502 VLF0406 (MPL FL)
QR4502 UN2213 (MPX H:ON)
IC4501 BA7700K1
IC4502 μPC78L05J
REG 5V
L4501 100μ
RCH FO
VR4509 5KB
RCH REC PB LEVEL
VR4507 20KB
LCH REC PB LEVEL
VR4502 20KB
LCH FO
VR4501 5KB
VR4505 10KB
MUTE LEVEL
E-E LEVEL
VR4512 200B
Q4502 2SD1306 (MUTING)
Q4503 2SD1306 (MUTING)
Q4504 2SD601 (AMP)
QR4501 UN2213 (MPX H:ON)
FL4501 VLF0406 (MPX FL)
FL4503 VLF0697
1.8MHz BPF
1.4MHz BPF
L4502 100μ
OUTPUT SW
MUTE
MIX ALC
OUTPUT SW CONTROL
REC BIAS
ALC DET
EVR
LPF
DET
WEIGHT
20K LPF
ATT
HOLD2
HOLD1
AUDIO LIMI.
NSL
VCO
FM LPF
FM LIMI.
P.D.
H.P SHIFT
HOLD P. MM
FM DET
ENVE
CARR DET
D.D. DET
PB/REC CONTROL
H.SW SHIFT
H.SW
ENV OUT
MIX H
A.DUB PAUSE H
A.MOD SEL L
EE H
FM MUTE H
AUDIO IN (N)
REG 12.3V
A RFC OUT
GND
REC VR (L)
REC VR (C)
REC VR (R)
MPX H
LCH L
RCH L
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
A. H. SW
RF IN
REC OUT
(+12V)
(+5V)
(REG 12.3V)
P4003 (TO VR)
H. P OUT (R)
H. P OUT (L)
PICTURE CNT
P4001 (TO A/C HEAD)
A. HEAD (R)
A. HEAD (L)
A ERASE
P7403 (TO TIMER)
TIMER BUS CLK
TIMER BUS TLK
TIMER BUS LSN
AFC (S CURVE)
DAC/CLOCK
AUDIO DEF H
SYNC L
AFC DEF
DATA/BAND VL
CS/BAND U

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

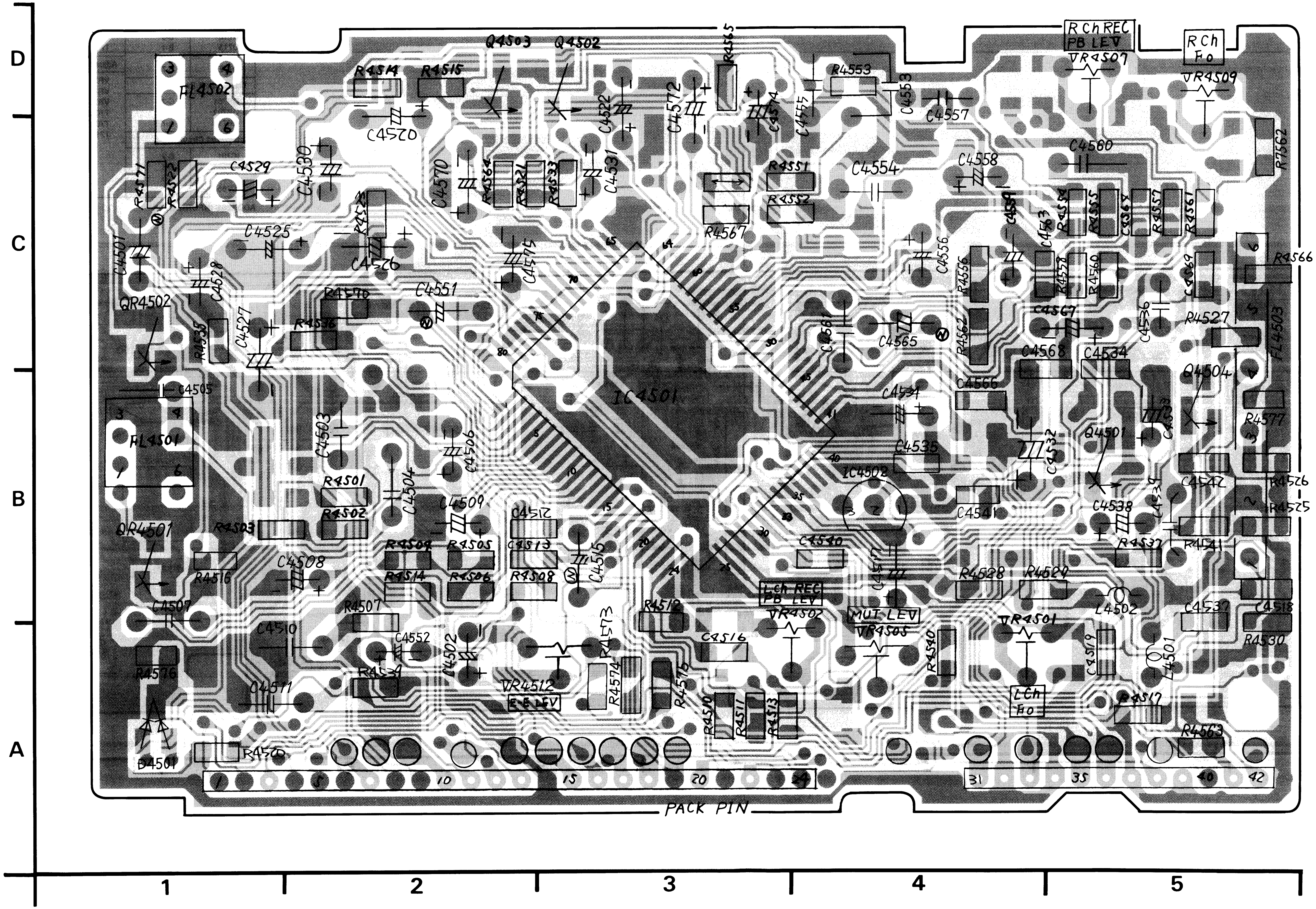
NOTE: THE MEASUREMENT MODE OF THE
DC VOLTAGES ARE FOLLOWING CONDITION.

- LINE IN SIGNAL LEVEL... −10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS (   )
  PLAY...WITHOUT BRACKETS

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

15 16 17 18 19 20 21 22 23 24 25 26

3-22. Hi-Fi AUDIO PACK C.B.A. (VEP04242C)


D
C
B
A
1
2
3
4
5
FL4502
FL4501
FL4503
IC4501
IC4502
Q4501
Q4502
Q4503
Q4504
QR4501
QR4502
D4501
L4501
L4502
R Ch REC PB LEV
VR4507
R Ch Fo
VR4509
L Ch REC PB LEV
VR4502
MUT LEV
VR4505
VR4501
L Ch Fo
VR4512
E-E LEV
PACK PIN
R4514
R4515
R4565
R4553
R7562
R4566
R4527
R4577
R4526
R4525
R4541
R4530
R4563
R4517
R4501
R4502
R4503
R4516
R4507
R4576
R4570
R4574
R4573
R4510
R4511
R4513
R4512
R4528
R4529
R4567
R4551
R4552
R4536
R4535
R4540
C4520
C4529
C4530
C4525
C4526
C4527
C4528
C4501
C4505
C4503
C4504
C4506
C4507
C4508
C4509
C4510
C4511
C4512
C4513
C4515
C4516
C4517
C4518
C4519
C4522
C4531
C4532
C4534
C4535
C4536
C4537
C4538
C4540
C4541
C4542
C4551
C4552
C4553
C4554
C4556
C4557
C4558
C4560
C4561
C4565
C4566
C4567
C4568
C4570
C4572
C4574
C4575
1
5
10
15
20
24
31
35
40
42

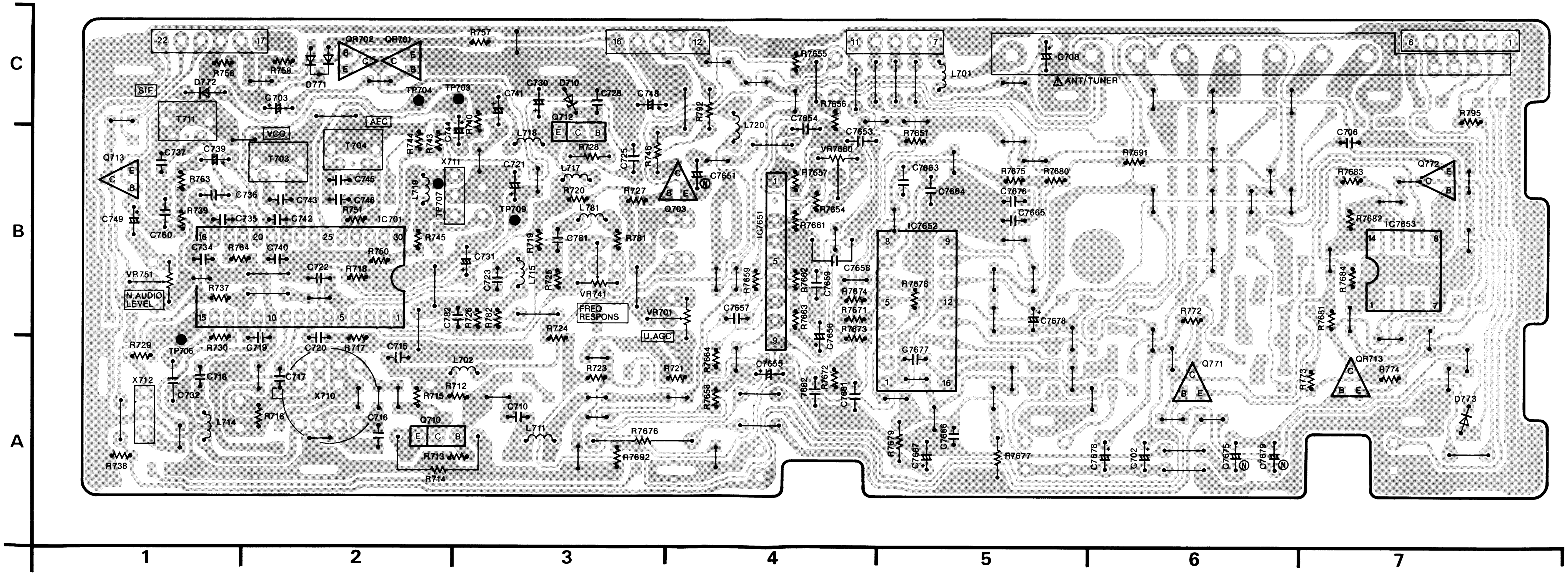
Hi-Fi AUDIO PACK C.B.A.	
Transistor	
Q4501	B-5
Q4502	D-3
Q4503	D-2
Q4504	B-5
Transistor & Resistor	
QR4501	B-1
QR4502	C-1
Integrated Circuit	
IC4501	B-3
IC4502	B-4
Adjustment	
VR4501	A-4
VR4502	B-4
VR4505	A-4
VR4507	D-5
VR4509	D-5
VR4512	A-3

ADDRESS INFORMATION

3-23. TV DEMODULATOR PACK C.B.A. (VEP07550E: NV-F70B)

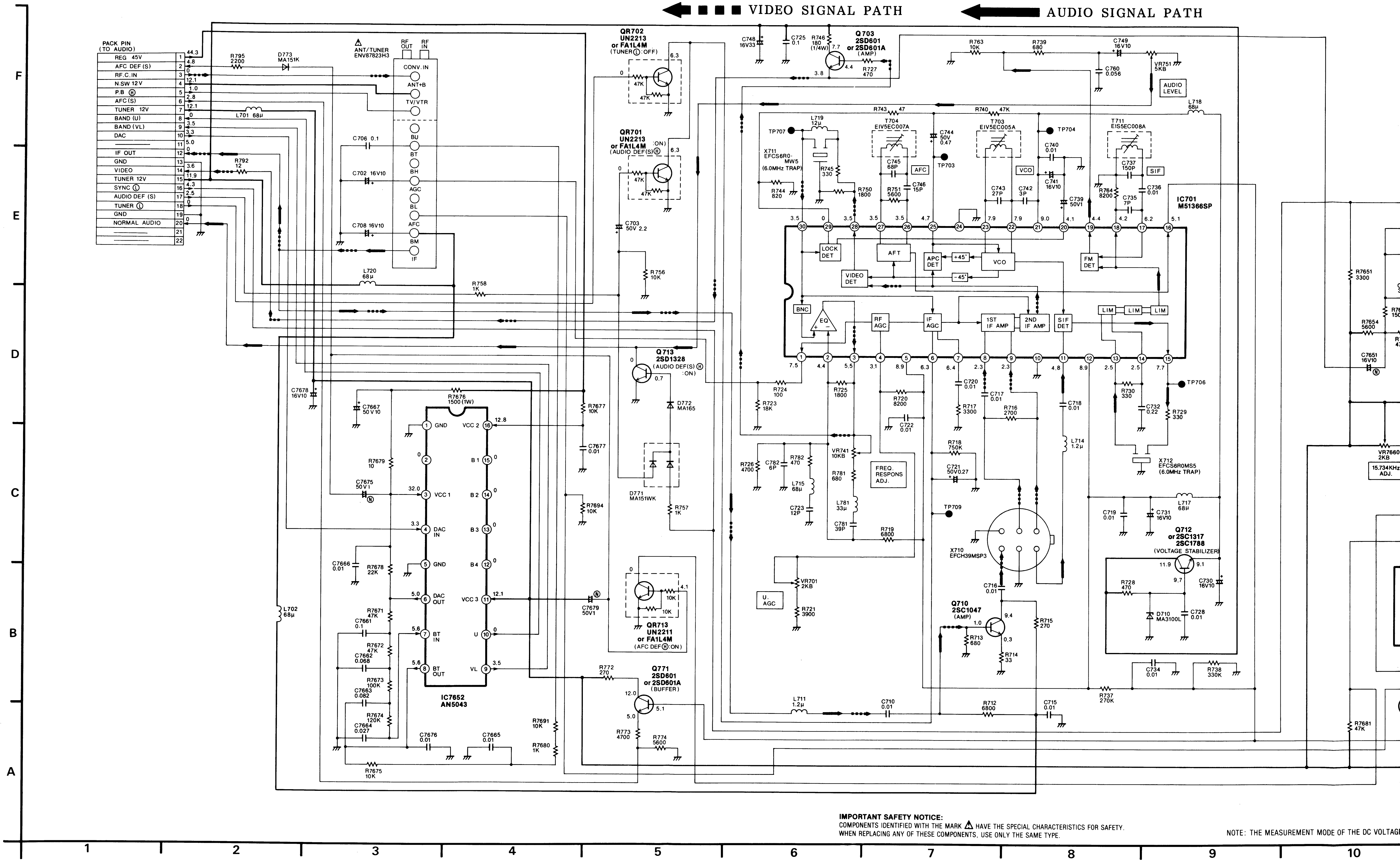
TV DEMODULATOR PACK C.B.A.			
Transistor		**Test Point**	
Q703	B-4	TP703	C-3
Q710	A-2	TP704	C-2
Q712	B-3	TP707	B-2
Q713	B-1	TP709	B-3
Q771	A-6	**Adjustment**	
Q772	B-7	VR701	B-3
Transistor & Resistor		VR741	B-3
QR701	C-2	VR751	B-1
QR702	C-2	T703	B-2
QR713	A-7	T704	B-2
Integrated Circuit		T711	C-1
IC701	B-2		
IC7651	B-4		
IC7652	B-5		
IC7653	B-7		

ADDRESS INFORMATION


C
B
A
1
2
3
4
5
6
7
22
17
16
12
11
7
6
1
QR702
QR701
R757
R756
R758
D772
D771
SIF
C703
TP704
TP703
AFC
C741
C730
D710
C728
C748
R792
L720
R7655
R7656
L701
C708
ANT/TUNER
T711
VCO
T703
T704
R744
R743
C744
R740
Q712
E C B
R728
L718
C7654
C7653
R7651
VR7660
C706
R795
Q713
C737
C739
R763
C736
C743
C745
C746
R751
X711
TP707
L719
C721
L717
R720
L781
R727
C725
R746
Q703
C7651
R7657
R7654
C7663
C7664
R7675
R7680
C7676
C7665
R7691
R7683
Q772
C749
R739
C735
C742
IC701
TP709
R745
R719
C781
R781
IC7651
R7661
IC7652
R7682
IC7653
C760
C734
R764
C740
R750
C731
L715
R725
C723
R7659
R7662
C7659
C7658
R7678
R7684
VR751
N.AUDIO LEVEL
C722
R718
R737
VR741
FREQ RESPONS
VR701
U.AGC
C782
R726
R782
R724
C7657
R7663
R7674
R7671
R7673
C7656
C7678
R772
R7681
R729
TP706
R730
C719
C720
R717
C715
L702
R723
R721
R7664
C7655
C7677
Q771
QR713
R774
R773
X712
C718
C732
C717
X710
R715
R712
R7658
R7682
R7672
C7661
D773
L714
R716
C716
Q710
C710
L711
R7676
R7679
C7667
C7666
R7677
C7678
C702
C7675
C7679
R738
R713
R714
R7692

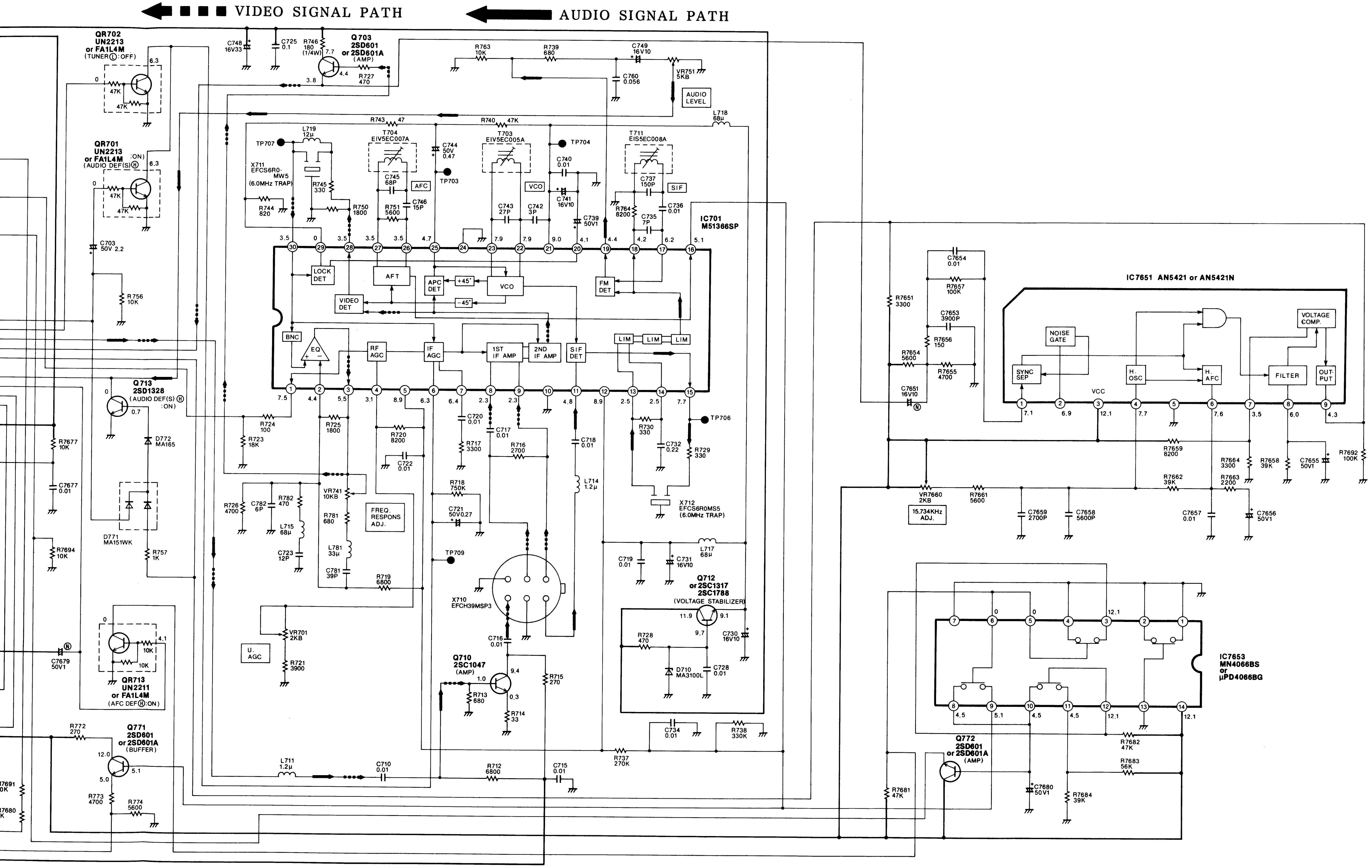
Back Page:
Hi-Fi AUDIO PACK Section

3-24. TV DEMODULATOR PACK SCHEMATIC DIAGRAM (NV-F70B)


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
PACK PIN (TO AUDIO)
REG 45V
AFC DEF (S)
RF.C.IN
N.SW 12V
P.B Ⓗ
AFC (S)
TUNER 12V
BAND (U)
BAND (VL)
DAC
IF OUT
GND
VIDEO
TUNER 12V
SYNC Ⓛ
AUDIO DEF (S)
TUNER Ⓛ
GND
NORMAL AUDIO
ANT/TUNER ENV87823H3
RF OUT
RF IN
CONV.IN
ANT+B
TV/VTR
BU
BT
BH
AGC
BL
AFC
BM
IF
R795 2200
D773 MA151K
L701 68μ
R792 12
C706 0.1
C702 16V10
C708 16V10
L720 68μ
R758 1K
QR702 UN2213 or FA1L4M (TUNER Ⓛ: OFF)
QR701 UN2213 or FA1L4M (AUDIO DEF(S)Ⓗ :ON)
C703 50V 2.2
R756 10K
Q713 2SD1328 (AUDIO DEF(S) Ⓗ :ON)
D772 MA165
D771 MA151WK
R757 1K
QR713 UN2211 or FA1L4M (AFC DEF Ⓗ :ON)
Q771 2SD601 or 2SD601A (BUFFER)
R772 270
R773 4700
R774 5600
C748 16V33
C725 0.1
R746 180 (1/4W)
Q703 2SD601 or 2SD601A (AMP)
R727 470
R763 10K
R739 680
C749 16V10
C760 0.056
VR751 5KB
AUDIO LEVEL
L718 68μ
R743 47
R740 47K
TP707
L719 12μ
X711 EFCS6R0-MW5 (6.0MHz TRAP)
R745 330
R744 820
R750 1800
T704 EIV5EC007A
C745 68P
R751 5600
C746 15P
AFC
C744 50V 0.47
TP703
T703 EIV5EC005A
VCO
C743 27P
C742 3P
TP704
C740 0.01
C741 16V10
C739 50V1
T711 EIS5EC008A
C737 150P
SIF
R764 8200
C735 7P
C736 0.01
IC701 M51366SP
LOCK DET
AFT
APC DET
+45°
-45°
VCO
FM DET
VIDEO DET
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
TP706
R724 100
R723 18K
R725 1800
R720 8200
C722 0.01
C720 0.01
C717 0.01
R717 3300
R716 2700
C718 0.01
L714 1.2μ
R730 330
C732 0.22
R729 330
X712 EFCS6R0MS5 (6.0MHz TRAP)
R726 4700
C782 6P
R782 470
L715 68μ
C723 12P
VR741 10KB
R781 680
L781 33μ
C781 39P
FREQ. RESPONS ADJ.
R719 6800
R718 750K
C721 50V0.27
TP709
X710 EFCH39MSP3
VR701 2KB
R721 3900
U. AGC
C716 0.01
Q710 2SC1047 (AMP)
R713 680
R714 33
R715 270
C719 0.01
C731 16V10
L717 68μ
Q712 or 2SC1317 2SC1788 (VOLTAGE STABILIZER)
R728 470
C730 16V10
D710 MA3100L
C728 0.01
C734 0.01
R738 330K
R737 270K
L711 1.2μ
C710 0.01
R712 6800
C715 0.01
C7678 16V10
C7667 50V10
R7676 1500 (1W)
R7677 10K
C7677 0.01
IC7652 AN5043
GND
VCC 2
B1
VCC 1
B2
DAC IN
B3
B4
DAC OUT
VCC 3
BT IN
U
BT OUT
VL
R7679 10
C7675 50V1
C7666 0.01
R7678 22K
R7671 47K
C7661 0.1
R7672 47K
C7662 0.068
R7673 100K
C7663 0.082
R7674 120K
C7664 0.027
C7676 0.01
C7665 0.01
R7675 10K
R7694 10K
C7679 50V1
R7691 10K
R7680 1K
L702 68μ
R7651 3300
R7654 5600
C7651 16V10
VR7660 2KB
15.734KHz ADJ.
R7681 47K
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAG


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
QR702 UN2213 or FA1L4M (TUNER Ⓛ:OFF)
QR701 UN2213 or FA1L4M (AUDIO DEF(S)Ⓗ:ON)
Q703 2SD601 or 2SD601A (AMP)
Q713 2SD1328 (AUDIO DEF(S)Ⓗ:ON)
QR713 UN2211 or FA1L4M (AFC DEF Ⓗ:ON)
Q771 2SD601 or 2SD601A (BUFFER)
IC701 M51366SP
T704 EIV5EC007A
T703 EIV5EC005A
T711 EIS5EC008A
X711 EFCS6R0-MW5 (6.0MHz TRAP)
X712 EFCS6R0MS5 (6.0MHz TRAP)
X710 EFCH39MSP3
Q710 2SC1047 (AMP)
Q712 or 2SC1317 2SC1788 (VOLTAGE STABILIZER)
D710 MA3100L
D771 MA151WK
D772 MA165
VR741 10KB
VR701 2KB
VR751 5KB
AUDIO LEVEL
FREQ. RESPONS ADJ.
U. AGC
AFC
VCO
SIF
LOCK DET
AFT
APC DET
VIDEO DET
FM DET
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
TP703
TP704
TP706
TP707
TP709
IC7651 AN5421 or AN5421N
NOISE GATE
SYNC SEP
H. OSC
H. AFC
FILTER
VOLTAGE COMP.
OUT-PUT
VCC
VR7660 2KB
15.734KHz ADJ.
IC7653 MN4066BS or μPD4066BG
Q772 2SD601 or 2SD601A (AMP)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

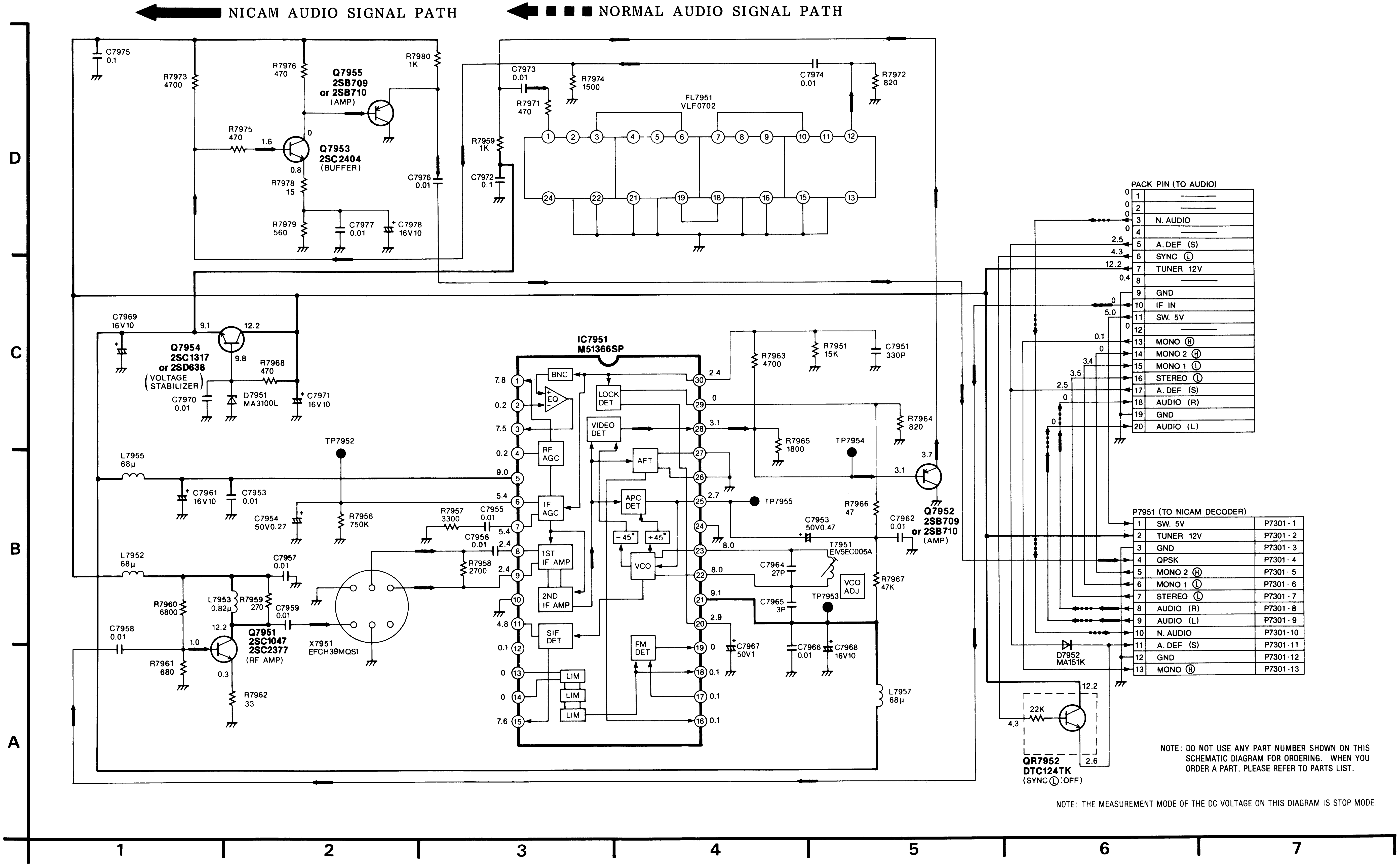
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

5 6 7 8 9 10 11 12 13

Next Page:
SUB NICAM PACK Section

3-25. SUB NICAM PACK SCHEMATIC DIAGRAM (NV-F70B)

3-26. SUB


NICAM AUDIO SIGNAL PATH
NORMAL AUDIO SIGNAL PATH
D
C
B
A
1
2
3
4
5
6
7
C7975 0.1
R7973 4700
R7976 470
Q7955 2SB709 or 2SB710 (AMP)
R7980 1K
R7975 470
1.6
0
Q7953 2SC2404 (BUFFER)
0.8
R7978 15
R7979 560
C7977 0.01
C7978 16V10
C7976 0.01
C7973 0.01
R7974 1500
R7971 470
R7959 1K
C7972 0.1
FL7951 VLF0702
C7974 0.01
R7972 820
C7969 16V10
9.1
12.2
Q7954 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
9.8
R7968 470
C7970 0.01
D7951 MA3100L
C7971 16V10
IC7951 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
AFT
APC DET
IF AGC
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
R7963 4700
R7951 15K
C7951 330P
R7964 820
R7965 1800
TP7952
TP7954
TP7955
L7955 68μ
C7961 16V10
C7953 0.01
C7954 50V0.27
R7956 750K
R7957 3300
C7955 0.01
C7956 0.01
R7958 2700
L7952 68μ
C7957 0.01
R7960 6800
L7953 0.82μ
R7959 270
C7959 0.01
C7958 0.01
R7961 680
1.0
Q7951 2SC1047 2SC2377 (RF AMP)
0.3
R7962 33
X7951 EFCH39MQS1
R7966 47
C7962 0.01
C7953 50V0.47
T7951 EIV5EC005A
C7964 27P
C7965 3P
TP7953
VCO ADJ
R7967 47K
Q7952 2SB709 or 2SB710 (AMP)
C7967 50V1
C7966 0.01
C7968 16V10
L7957 68μ
D7952 MA151K
22K
QR7952 DTC124TK (SYNC Ⓛ:OFF)
12.2
4.3
2.6

PACK PIN (TO AUDIO)

1	————
2	————
3	N. AUDIO
4	————
5	A. DEF (S)
6	SYNC Ⓛ
7	TUNER 12V
8	————
9	GND
10	IF IN
11	SW. 5V
12	————
13	MONO Ⓗ
14	MONO 2 Ⓗ
15	MONO 1 Ⓛ
16	STEREO Ⓛ
17	A. DEF (S)
18	AUDIO (R)
19	GND
20	AUDIO (L)

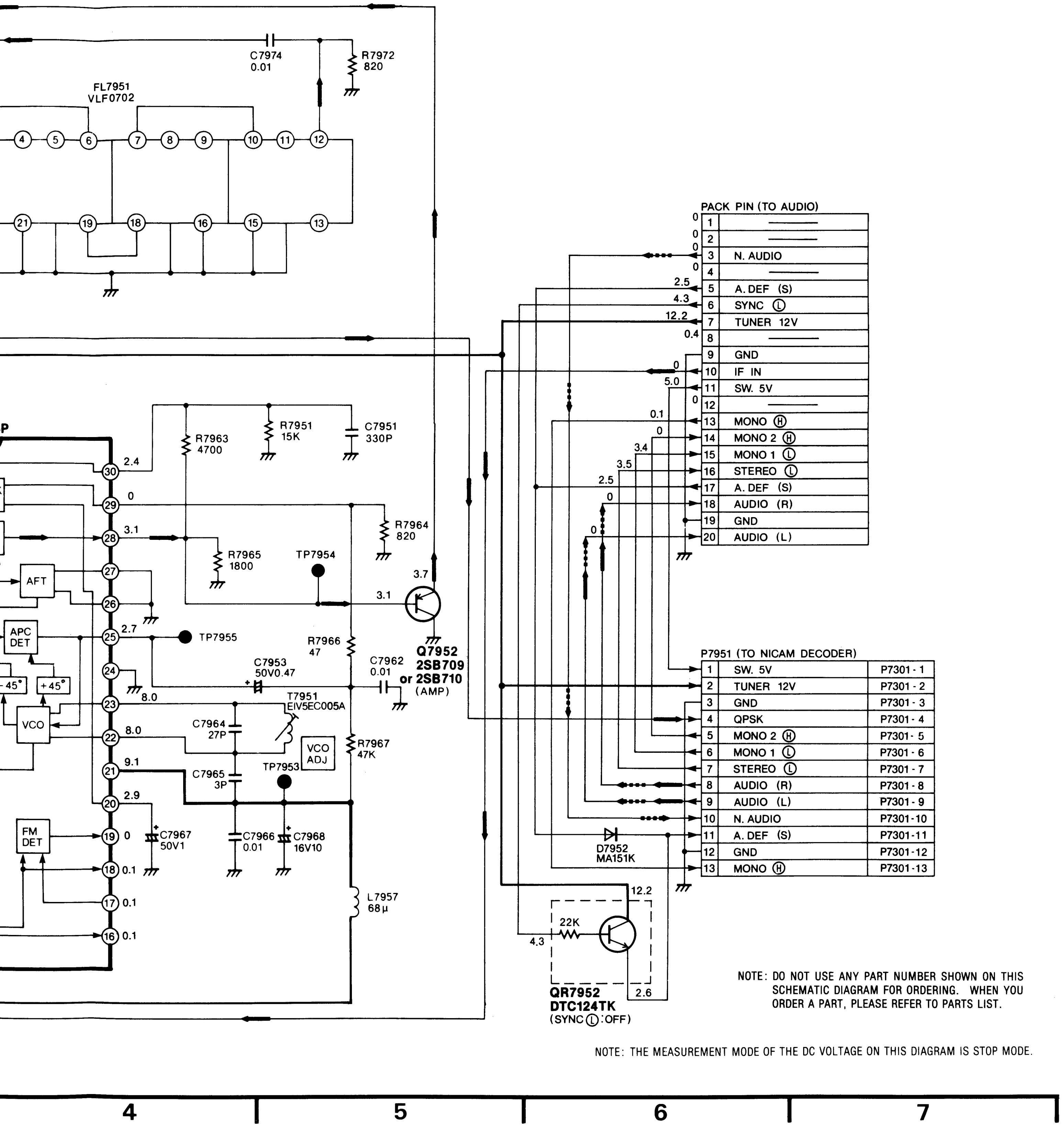
P7951 (TO NICAM DECODER)

1	SW. 5V	P7301 - 1
2	TUNER 12V	P7301 - 2
3	GND	P7301 - 3
4	QPSK	P7301 - 4
5	MONO 2 Ⓗ	P7301 - 5
6	MONO 1 Ⓛ	P7301 - 6
7	STEREO Ⓛ	P7301 - 7
8	AUDIO (R)	P7301 - 8
9	AUDIO (L)	P7301 - 9
10	N. AUDIO	P7301 - 10
11	A. DEF (S)	P7301 - 11
12	GND	P7301 - 12
13	MONO Ⓗ	P7301 - 13

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

ORMAL AUDIO SIGNAL PATH


C7974
0.01
R7972
820
FL7951
VLF0702
PACK PIN (TO AUDIO)
1
2
3 N. AUDIO
4
5 A. DEF (S)
6 SYNC Ⓛ
7 TUNER 12V
8
9 GND
10 IF IN
11 SW. 5V
12
13 MONO Ⓗ
14 MONO 2 Ⓗ
15 MONO 1 Ⓛ
16 STEREO Ⓛ
17 A. DEF (S)
18 AUDIO (R)
19 GND
20 AUDIO (L)
R7963
4700
R7951
15K
C7951
330P
R7964
820
R7965
1800
TP7954
AFT
APC
DET
TP7955
R7966
47
C7953
50V0.47
C7962
0.01
Q7952
2SB709
or 2SB710
(AMP)
T7951
EIV5EC005A
C7964
27P
VCO
VCO
ADJ
R7967
47K
C7965
3P
TP7953
FM
DET
C7967
50V1
C7966
0.01
C7968
16V10
L7957
68μ
P7951 (TO NICAM DECODER)
1 SW. 5V P7301 - 1
2 TUNER 12V P7301 - 2
3 GND P7301 - 3
4 QPSK P7301 - 4
5 MONO 2 Ⓗ P7301 - 5
6 MONO 1 Ⓛ P7301 - 6
7 STEREO Ⓛ P7301 - 7
8 AUDIO (R) P7301 - 8
9 AUDIO (L) P7301 - 9
10 N. AUDIO P7301 - 10
11 A. DEF (S) P7301 - 11
12 GND P7301 - 12
13 MONO Ⓗ P7301 - 13
D7952
MA151K
22K
QR7952
DTC124TK
(SYNC Ⓛ : OFF)
4
5
6
7

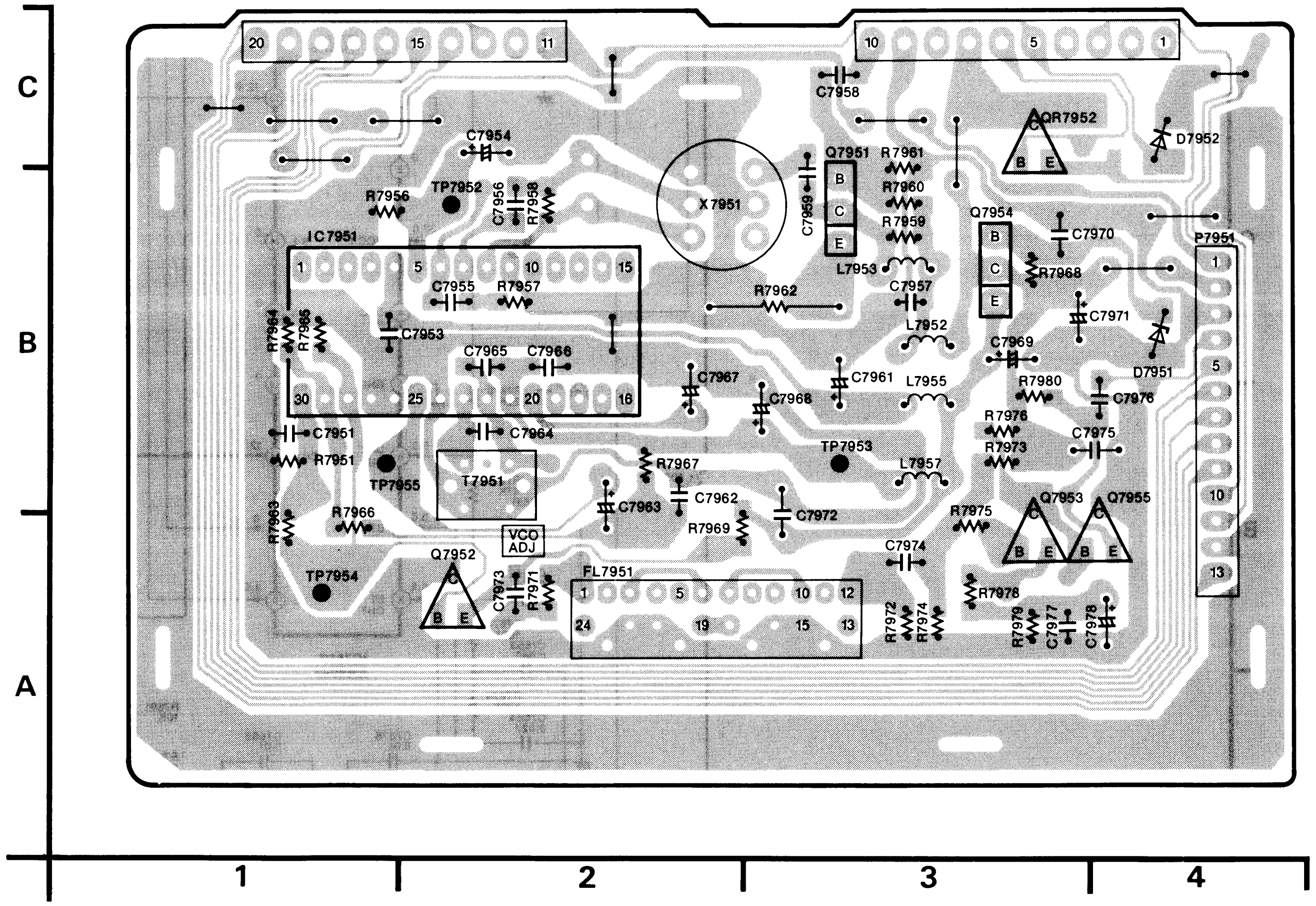
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

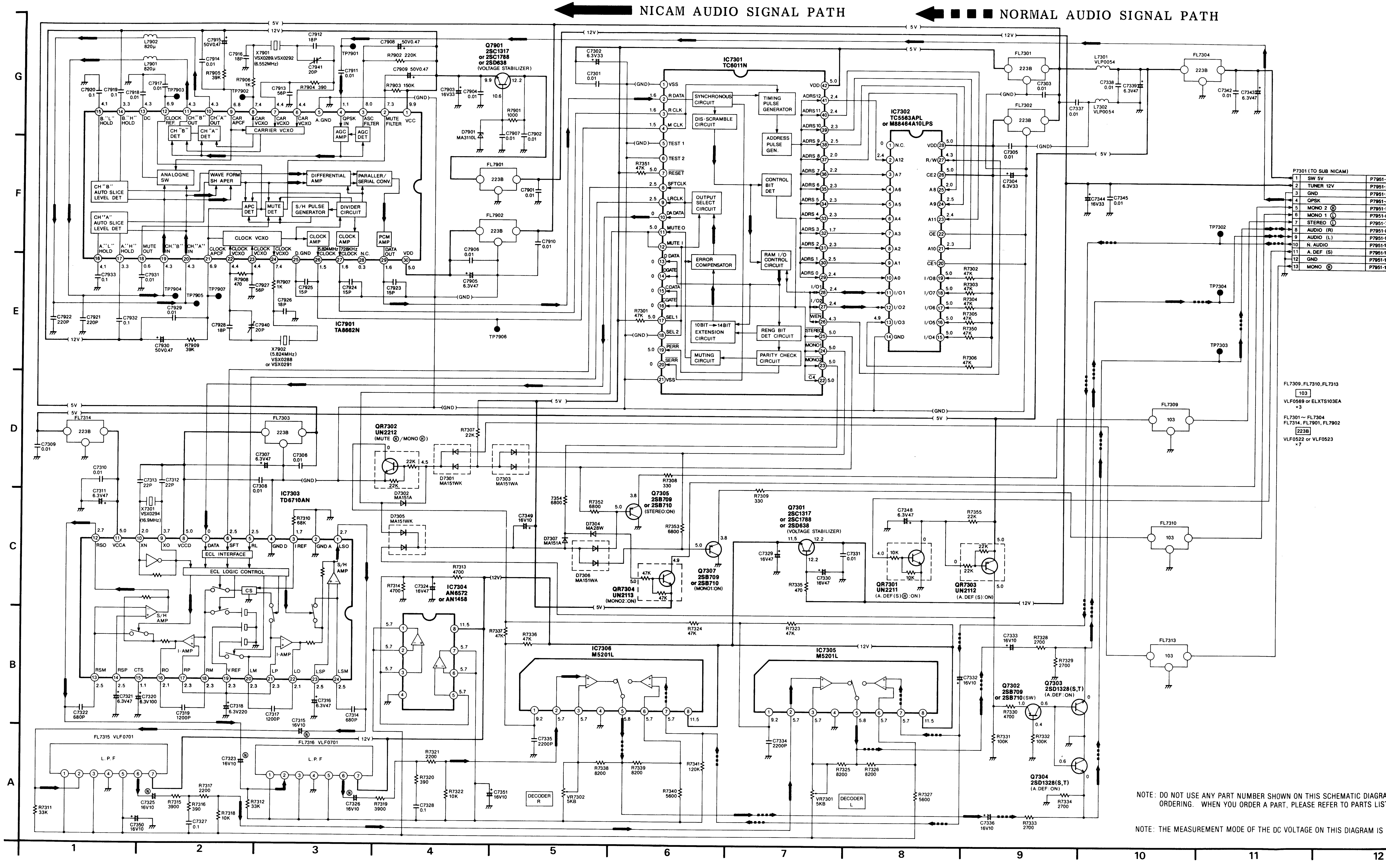
3-26. SUB NICAM PACK C.B.A. (VEP07548A: NV-F70B)

SUB NICAM PACK C.B.A.	
Transistor	
Q7951	C-3
Q7952	A-2
Q7953	B-3
Q7954	B-3
Q7955	B-4
Transistor & Resistor	
QR7952	C-3
Integrated Circuit	
IC7951	B-1
Test Point	
TP7952	B-2
TP7953	B-3
TP7954	A-1
TP7955	B-1
Adjustment	
T7951	B-2
Connector	
P7951	B-4

ADDRESS INFORMATION


C
B
A
1
2
3
4
IC7951
X7951
QR7952
Q7951
Q7952
Q7953
Q7954
Q7955
D7951
D7952
TP7952
TP7953
TP7954
TP7955
T7951
VCO
ADJ
FL7951
P7951
L7952
L7953
L7955
L7957

3-27. NICAM DECODER SCHEMATIC DIAGRAM (NV-F70B)

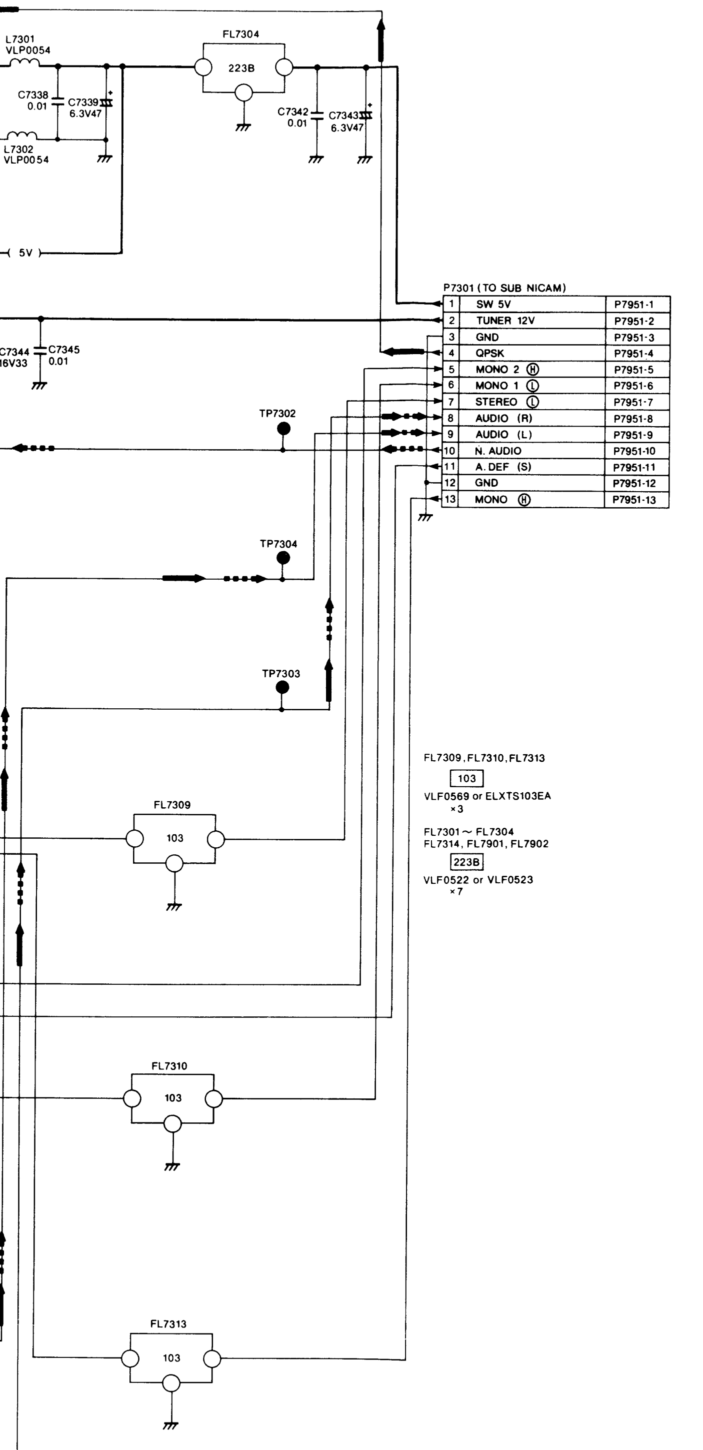

NICAM AUDIO SIGNAL PATH
NORMAL AUDIO SIGNAL PATH
IC7901
TA8662N
Q7901
2SC1317
or 2SC1788
or 2SD638
(VOLTAGE STABILIZER)
D7901
MA3110L
X7901
VSX0289,VSX0292
(6.552MHz)
X7902
(5.824MHz)
VSX0288
or VSX0291
FL7901
FL7902
223B
CARRIER VCXO
CH "B" DET
CH "A" DET
AGC AMP
AGC DET
ANALOGNE SW
WAVE FORM SH APER
DIFFERENTIAL AMP
PARALLER/ SERIAL CONV.
CH "B" AUTO SLICE LEVEL DET
CH "A" AUTO SLICE LEVEL DET
APC DET
MUTE DET
S/H PULSE GENERATOR
DIVIDER CIRCUIT
CLOCK VCXO
CLOCK AMP
PCM AMP
IC7301
TC6011N
SYNCHRONOUS CIRCUIT
DIS-SCRAMBLE CIRCUIT
TIMING PULSE GENERATOR
ADDRESS PULSE GEN.
CONTROL BIT DET
OUTPUT SELECT CIRCUIT
ERROR COMPENSATOR
RAM I/O CONTROL CIRCUIT
10BIT→14BIT EXTENSION CIRCUIT
RENG BIT DET CIRCUIT
MUTING CIRCUIT
PARITY CHECK CIRCUIT
IC7302
TC5563APL
or M88464A10LPS
FL7301
FL7302
FL7303
FL7304
FL7314
L7301
VLP0054
L7302
VLP0054
P7301 (TO SUB NICAM)
1 SW 5V P7951-
2 TUNER 12V P7951-
3 GND P7951-
4 QPSK P7951-
5 MONO 2 Ⓗ P7951-
6 MONO 1 Ⓛ P7951-
7 STEREO Ⓛ P7951-
8 AUDIO (R) P7951-
9 AUDIO (L) P7951-
10 N. AUDIO P7951-
11 A. DEF (S) P7951-
12 GND P7951-
13 MONO Ⓗ P7951-
TP7302
TP7304
TP7303
FL7309, FL7310, FL7313
103
VLF0569 or ELXTS103EA
×3
FL7301 ~ FL7304
FL7314, FL7901, FL7902
223B
VLF0522 or VLF0523
×7
IC7303
TD6710AN
X7301
VSX0294
(16.9MHz)
ECL INTERFACE
ECL LOGIC CONTROL
S/H AMP
I-AMP
QR7302
UN2212
(MUTE Ⓗ/MONO Ⓗ)
D7301
MA151WK
D7303
MA151WA
D7302
MA151A
D7305
MA151WK
D7304
MA28W
D7306
MA151WA
D7307
MA151A
Q7305
2SB709
or 2SB710
(STEREO:ON)
QR7304
UN2113
(MONO2:ON)
Q7307
2SB709
or 2SB710
(MONO1:ON)
Q7301
2SC1317
or 2SC1788
or 2SD638
(VOLTAGE STABILIZER)
QR7301
UN2211
(A.DEF(S)Ⓗ:ON)
QR7303
UN2112
(A.DEF(S):ON)
IC7304
AN6572
or AN1458
IC7306
M5201L
IC7305
M5201L
FL7309
FL7310
FL7313
Q7302
2SB709
or 2SB710(SW)
Q7303
2SD1328(S,T)
(A.DEF:ON)
Q7304
2SD1328(S,T)
(A.DEF:ON)
FL7315 VLF0701
FL7316 VLF0701
L.P.F
DECODER R
DECODER L
VR7302
5KB
VR7301
5KB
5V
12V
GND
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRA
ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS

DIO SIGNAL PATH

3-28. NICAM DECODER C.B.A. (VEP07549A: NV-F70B)


L7301
VLP0054
L7302
VLP0054
C7338
0.01
C7339
6.3V47
FL7304
223B
C7342
0.01
C7343
6.3V47
5V
C7344
16V33
C7345
0.01
TP7302
TP7304
TP7303
FL7309
103
FL7310
103
FL7313
103

P7301 (TO SUB NICAM)

1	SW 5V	P7951-1
2	TUNER 12V	P7951-2
3	GND	P7951-3
4	QPSK	P7951-4
5	MONO 2 Ⓗ	P7951-5
6	MONO 1 Ⓛ	P7951-6
7	STEREO Ⓛ	P7951-7
8	AUDIO (R)	P7951-8
9	AUDIO (L)	P7951-9
10	N. AUDIO	P7951-10
11	A. DEF (S)	P7951-11
12	GND	P7951-12
13	MONO Ⓗ	P7951-13

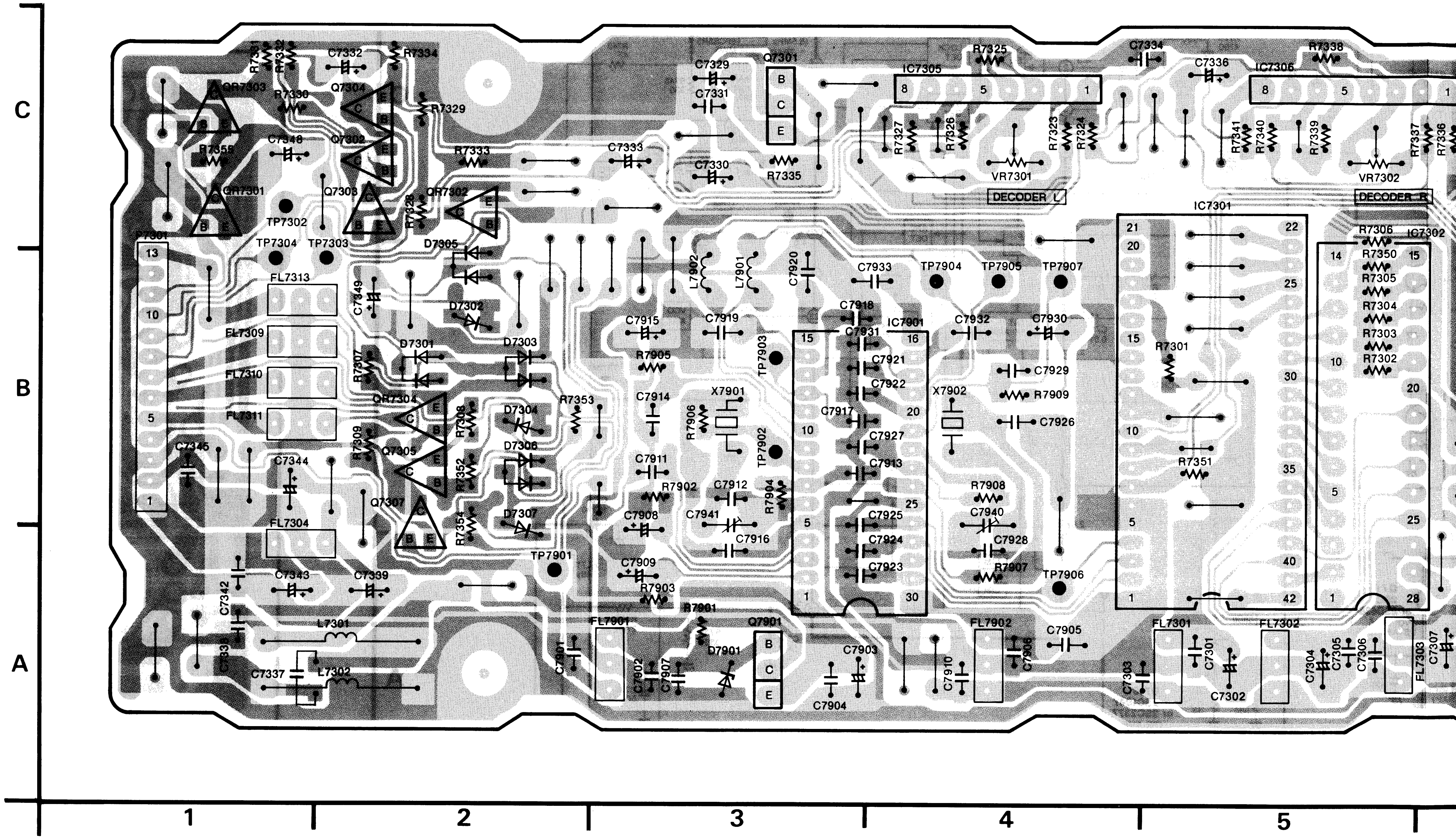
FL7309, FL7310, FL7313
103
VLF0569 or ELXTS103EA
×3

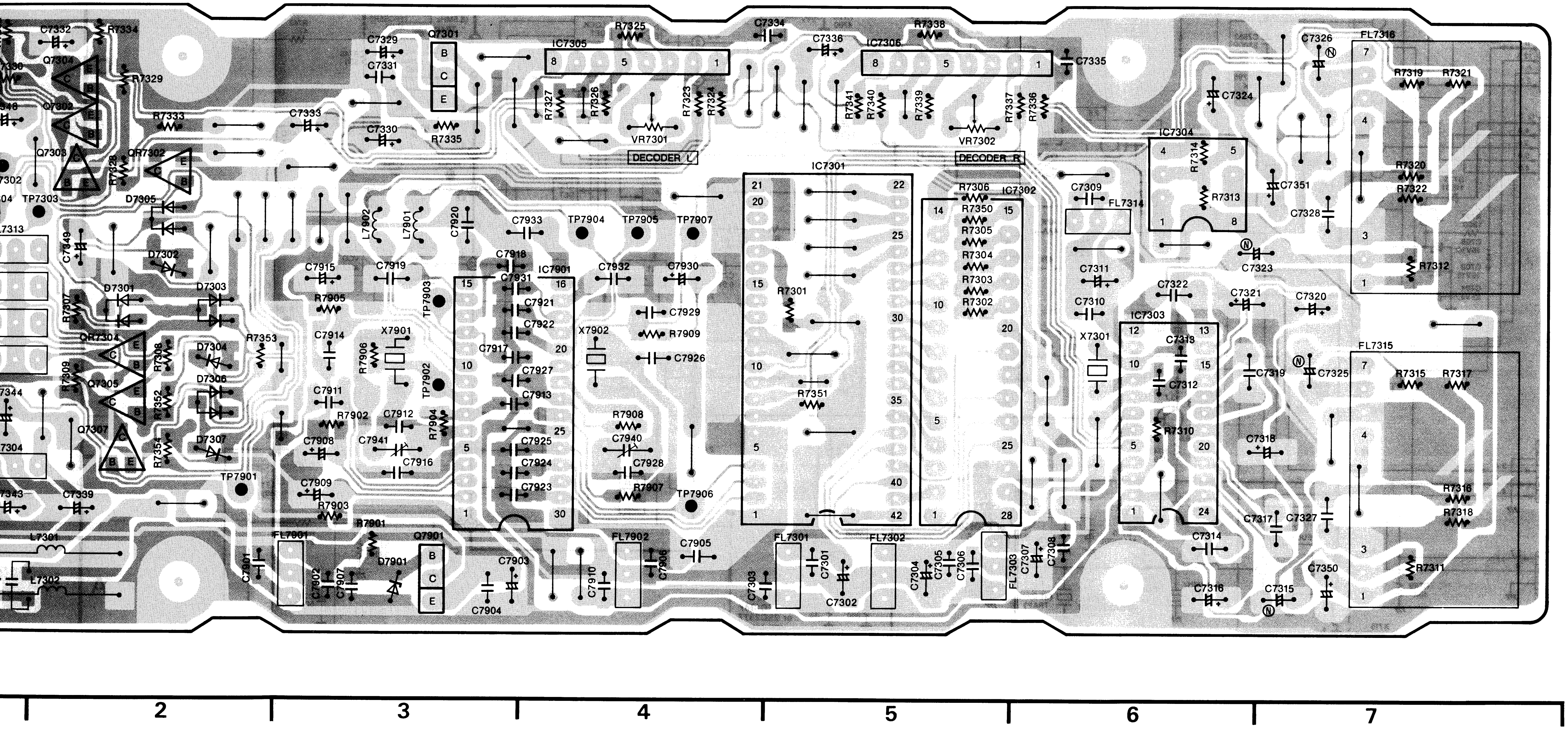
FL7301 ~ FL7304
FL7314, FL7901, FL7902
223B
VLF0522 or VLF0523
×7

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

10 11 12


C
B
A
1
2
3
4
5
R7331
R7332
C7332
R7334
QR7303
R7330
Q7304
R7329
R7359
C7348
Q7302
R7333
C7333
QR7301
Q7303
QR7302
R7328
TP7302
TP7304
TP7303
P7301
13
10
5
1
FL7313
FL7309
FL7310
FL7311
FL7304
C7349
D7305
D7302
D7301
D7303
R7307
QR7304
R7308
R7309
Q7305
R7352
Q7307
R7354
D7304
D7306
D7307
R7353
C7345
C7344
C7342
C7343
C7339
C7341
C7337
L7301
L7302
TP7901
C7329
C7331
C7330
Q7301
B
C
E
R7335
R7325
IC7305
8
5
1
R7327
R7326
R7323
R7324
VR7301
DECODER L
C7334
C7336
R7338
IC7306
R7341
R7340
R7339
R7337
R7336
VR7302
DECODER R
L7902
L7901
C7920
C7933
TP7904
TP7905
TP7907
C7915
C7919
C7918
C7931
IC7901
15
16
R7905
TP7903
C7921
C7922
C7914
X7901
R7906
C7917
20
C7927
C7913
TP7902
C7911
R7902
C7912
R7904
C7908
C7941
C7916
C7925
C7924
C7923
25
30
C7909
R7903
R7901
FL7901
C7901
C7902
C7907
D7901
Q7901
C7903
C7904
C7910
FL7902
C7906
C7905
C7932
C7930
C7929
X7902
R7909
C7926
R7908
C7940
C7928
R7907
TP7906
IC7301
21
22
20
25
15
30
10
35
5
40
1
42
R7301
R7351
IC7302
R7306
R7350
R7305
R7304
R7303
R7302
14
28
FL7301
C7303
C7301
C7302
FL7302
C7304
C7305
C7306
FL7303
C7307


C7332
R7334
Q7304
R7329
Q7302
R7333
Q7303
QR7302
TP7303
D7305
D7302
D7301
D7303
QR7304
D7304
D7306
Q7305
Q7307
D7307
R7353
R7352
R7354
C7349
C7339
TP7901
L7301
L7302
C7329
C7331
C7333
C7330
Q7301
R7335
IC7305
R7325
R7327
R7326
R7323
R7324
VR7301
DECODER L
C7334
C7336
IC7306
R7338
R7341
R7340
R7339
R7337
R7336
VR7302
DECODER R
C7335
C7326
C7324
FL7316
R7319
R7321
IC7304
R7314
R7313
C7351
C7328
R7320
R7322
R7312
C7323
L7902
L7901
C7920
C7933
TP7904
TP7905
TP7907
C7918
C7931
IC7901
C7915
C7919
C7932
C7930
R7905
TP7903
C7921
C7922
C7929
R7909
C7914
X7901
X7902
C7917
C7926
R7906
C7927
TP7902
C7913
C7911
R7902
C7912
R7904
R7908
C7940
C7941
C7916
C7925
C7924
C7928
C7908
C7923
R7907
C7909
R7903
TP7906
IC7301
R7301
R7351
IC7302
R7306
R7350
R7305
R7304
R7303
R7302
C7309
FL7314
C7311
C7310
X7301
C7322
C7321
C7320
IC7303
C7313
C7312
R7310
C7319
C7325
FL7315
R7315
R7317
C7318
R7316
R7318
C7317
C7327
C7314
R7311
C7350
C7316
C7315
FL7901
R7901
Q7901
D7901
C7901
C7902
C7907
C7903
C7904
C7910
FL7902
C7906
C7905
C7903
FL7301
C7301
C7302
FL7302
C7304
C7305
C7306
FL7303
C7307
C7308
B
C
E
2
3
4
5
6
7

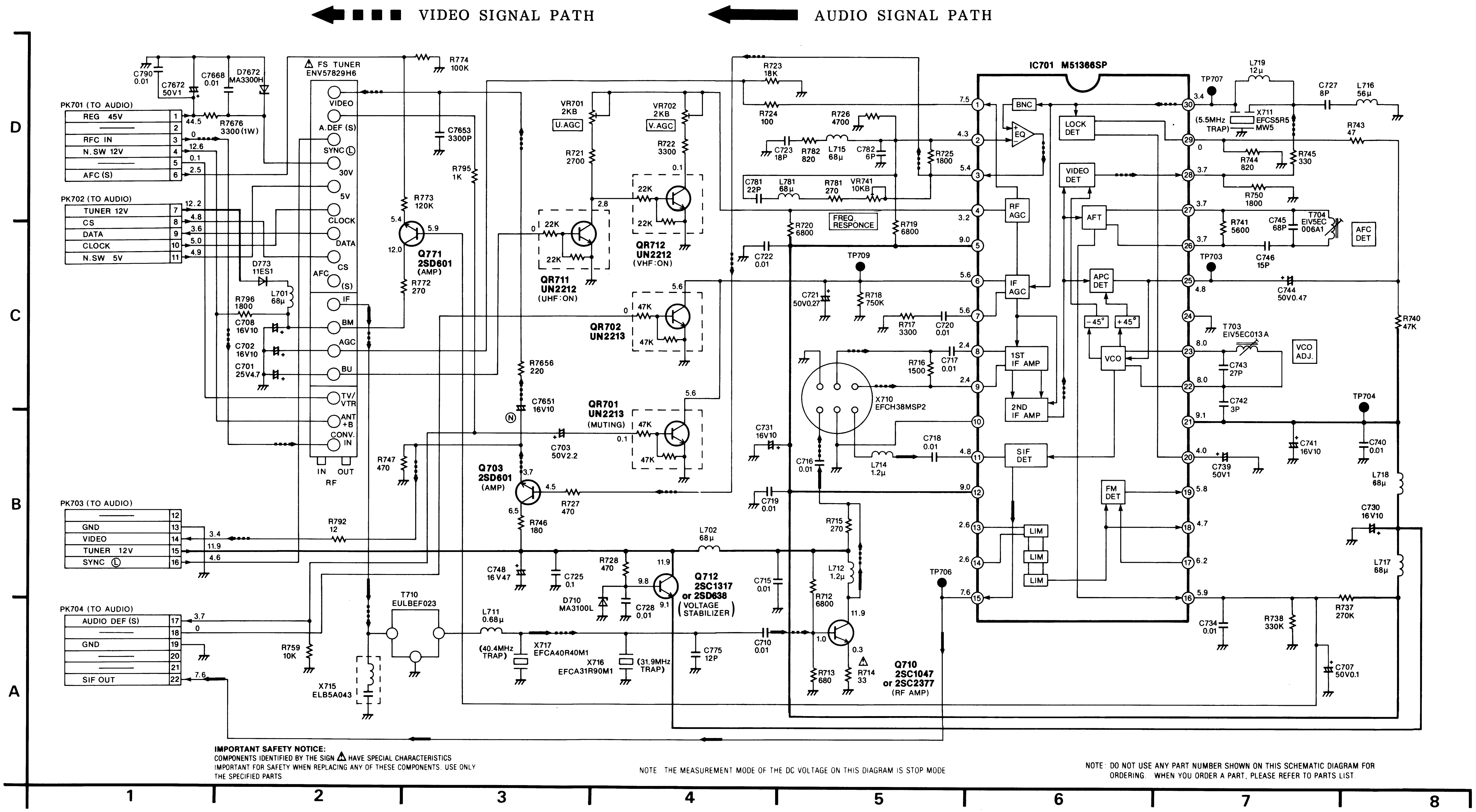
NICAM DECODER C.B.A.	
Transistor	
Q7301	C-3
Q7302	C-1
Q7303	C-2
Q7304	C-2
Q7305	B-2
Q7307	B-2
Q7901	A-3
Transistor & Resistor	
QR7301	C-1
QR7302	C-2
QR7303	C-1
QR7304	B-2
Integrated Circuit	
IC7301	B-5
IC7302	B-5
IC7303	B-6
IC7304	C-6
IC7305	C-4
IC7306	C-5
IC7901	B-3
Test Point	
TP7302	C-1
TP7303	B-1
TP7304	B-1
TP7901	A-2
TP7902	B-3
TP7903	B-3
TP7904	B-4
TP7905	B-4
TP7906	A-4
TP7907	B-4
Adjustment	
C7940	A-4
C7941	A-3
VR7301	C-4
VR7302	C-5
Connector	
P7301	B-1

ADDRESS INFORMATION

Next Page:
TV DEMODULATOR PACK Section

3-29. TV DEMODULATOR PACK SCHEMATIC DIAGRAM (NV-F70EV)

3-30. TV DE

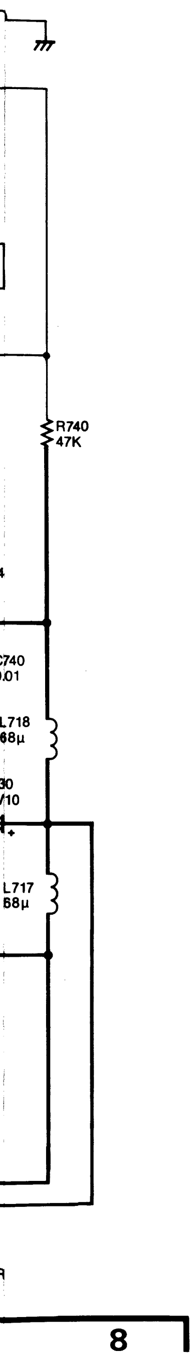

VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
PK701 (TO AUDIO)
REG 45V
RFC IN
N.SW 12V
AFC (S)
PK702 (TO AUDIO)
TUNER 12V
CS
DATA
CLOCK
N.SW 5V
PK703 (TO AUDIO)
GND
VIDEO
TUNER 12V
SYNC Ⓛ
PK704 (TO AUDIO)
AUDIO DEF (S)
GND
SIF OUT
FS TUNER ENV57829H6
VIDEO
A.DEF (S)
SYNC Ⓛ
30V
5V
CLOCK
DATA
CS
AFC (S)
IF
BM
AGC
BU
TV/VTR
ANT +B
CONV. IN
IN OUT RF
C790 0.01
C7672 50V1
C7668 0.01
D7672 MA3300H
R7676 3300(1W)
D773 11ES1
L701 68μ
R796 1800
C708 16V10
C702 16V10
C701 25V4.7
R774 100K
C7653 3300P
R795 1K
R773 120K
Q771 2SD601 (AMP)
R772 270
R7656 220
C7651 16V10
R747 470
Q703 2SD601 (AMP)
R746 180
R727 470
R792 12
C703 50V2.2
VR701 2KB U.AGC
R721 2700
VR702 2KB V.AGC
R722 3300
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
QR702 UN2213
QR701 UN2213 (MUTING)
22K
47K
R723 18K
R724 100
R726 4700
C723 18P
R782 820
L715 68μ
C782 6P
R725 1800
C781 22P
L781 68μ
R781 270
VR741 10KB
FREQ. RESPONCE
R720 6800
R719 6800
C722 0.01
TP709
C721 50V0.27
R718 750K
R717 3300
C720 0.01
R716 1500
C717 0.01
X710 EFCH38MSP2
C731 16V10
C716 0.01
L714 1.2μ
C718 0.01
C719 0.01
R715 270
L712 1.2μ
R712 6800
Q710 2SC1047 or 2SC2377 (RF AMP)
R713 680
R714 33
TP706
C748 16V47
C725 0.1
R728 470
D710 MA3100L
C728 0.01
Q712 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
L702 68μ
C715 0.01
C710 0.01
T710 EULBEF023
L711 0.68μ
X717 EFCA40R40M1 (40.4MHz TRAP)
X716 EFCA31R90M1 (31.9MHz TRAP)
C775 12P
R759 10K
X715 ELB5A043
IC701 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
IF AGC
AFT
APC DET
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
TP707
L719 12μ
C727 8P
L716 56μ
X711 EFCS5R5 MW5 (5.5MHz TRAP)
R743 47
R744 820
R745 330
R750 1800
R741 5600
C745 68P
T704 EIV5EC 006A1
AFC DET
TP703
C746 15P
C744 50V0.47
R740 47K
T703 EIV5EC013A
C743 27P
VCO ADJ.
C742 3P
TP704
C741 16V10
C740 0.01
C739 50V1
L718 68μ
C730 16V10
L717 68μ
C734 0.01
R738 330K
R737 270K
C707 50V0.1
D
C
B
A
1
2
3
4
5
6
7
8

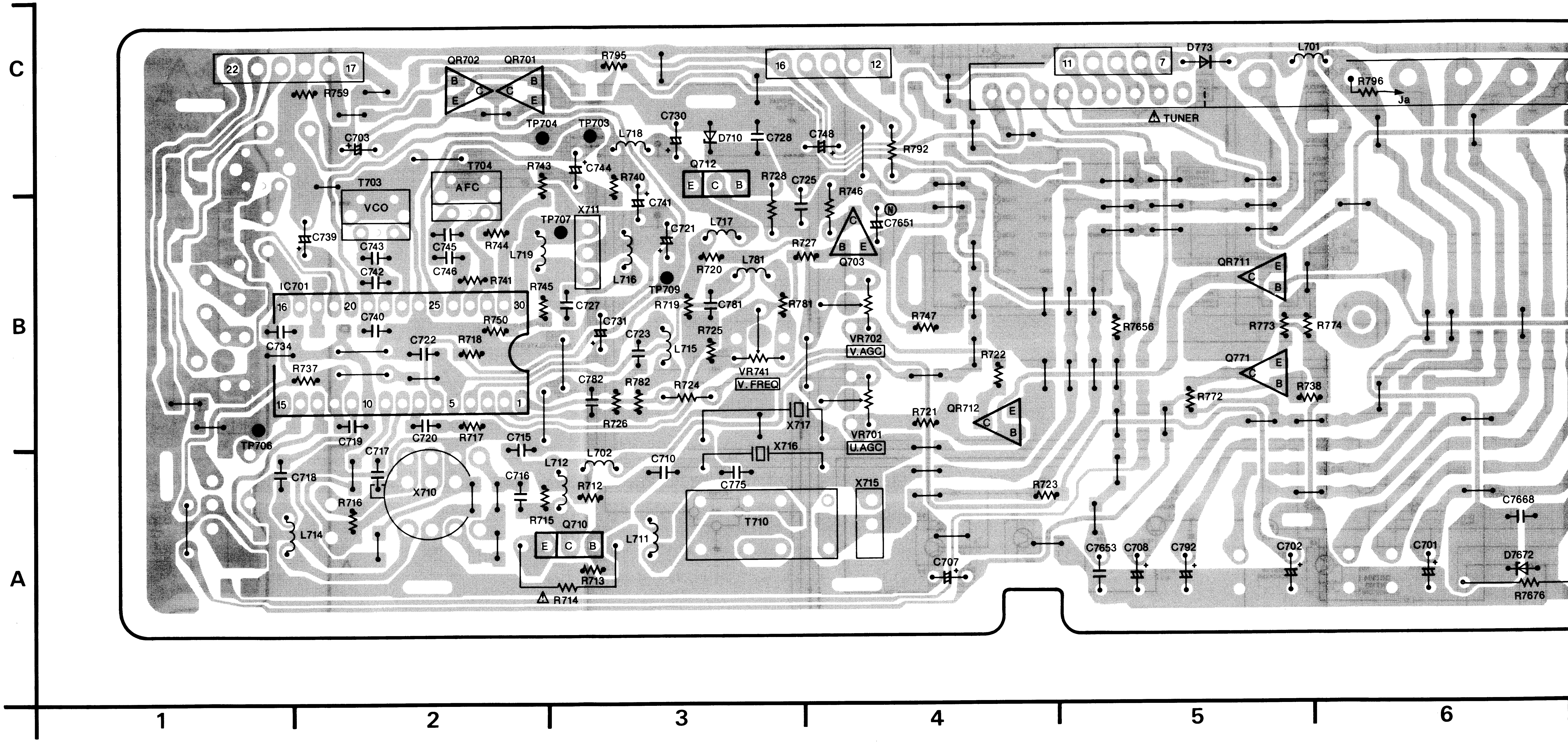
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.

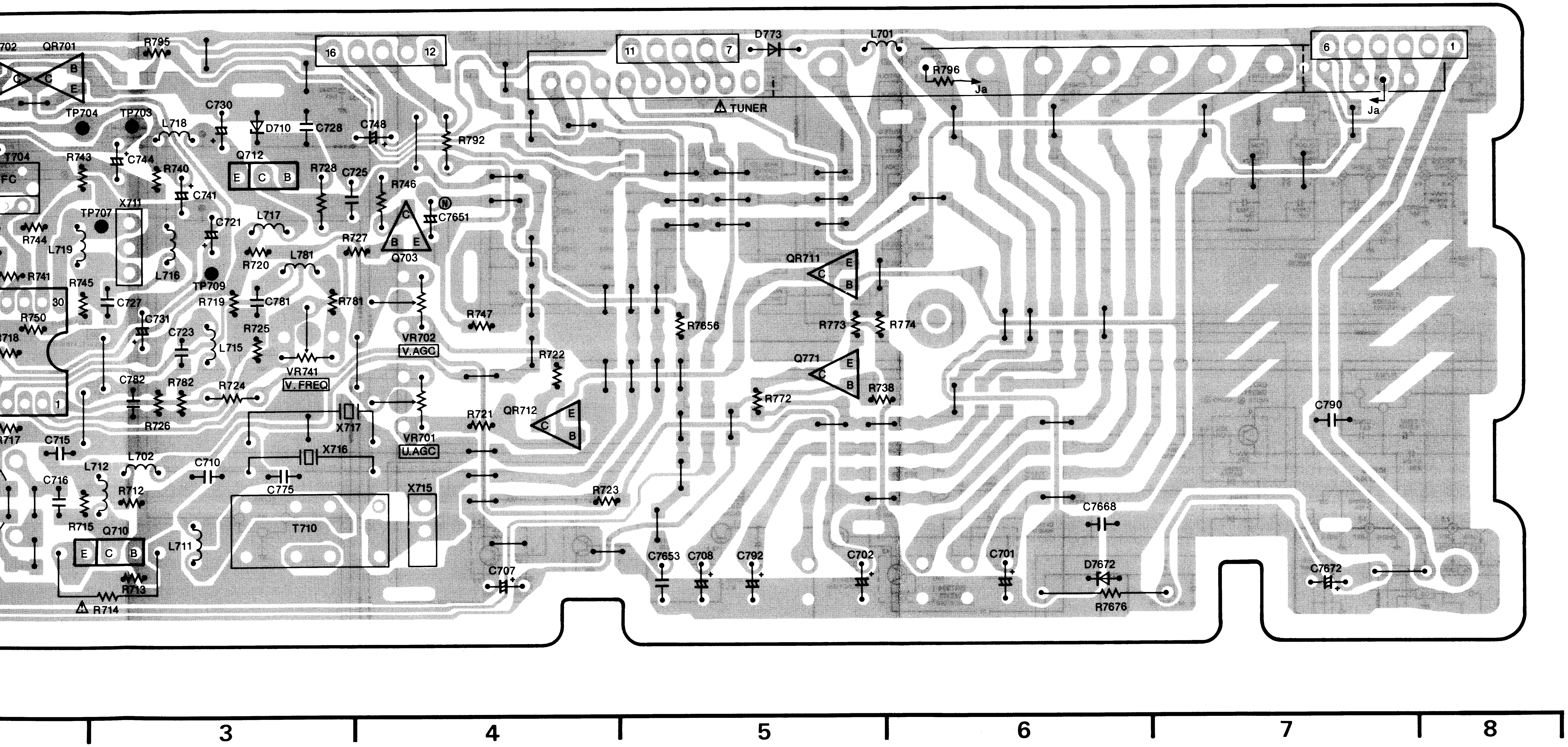
NOTE THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-30. TV DEMODULATOR PACK C.B.A. (VEP07536B: NV-F70EV)


R740
47K
C740
0.01
L718
68µ
L717
68µ
8

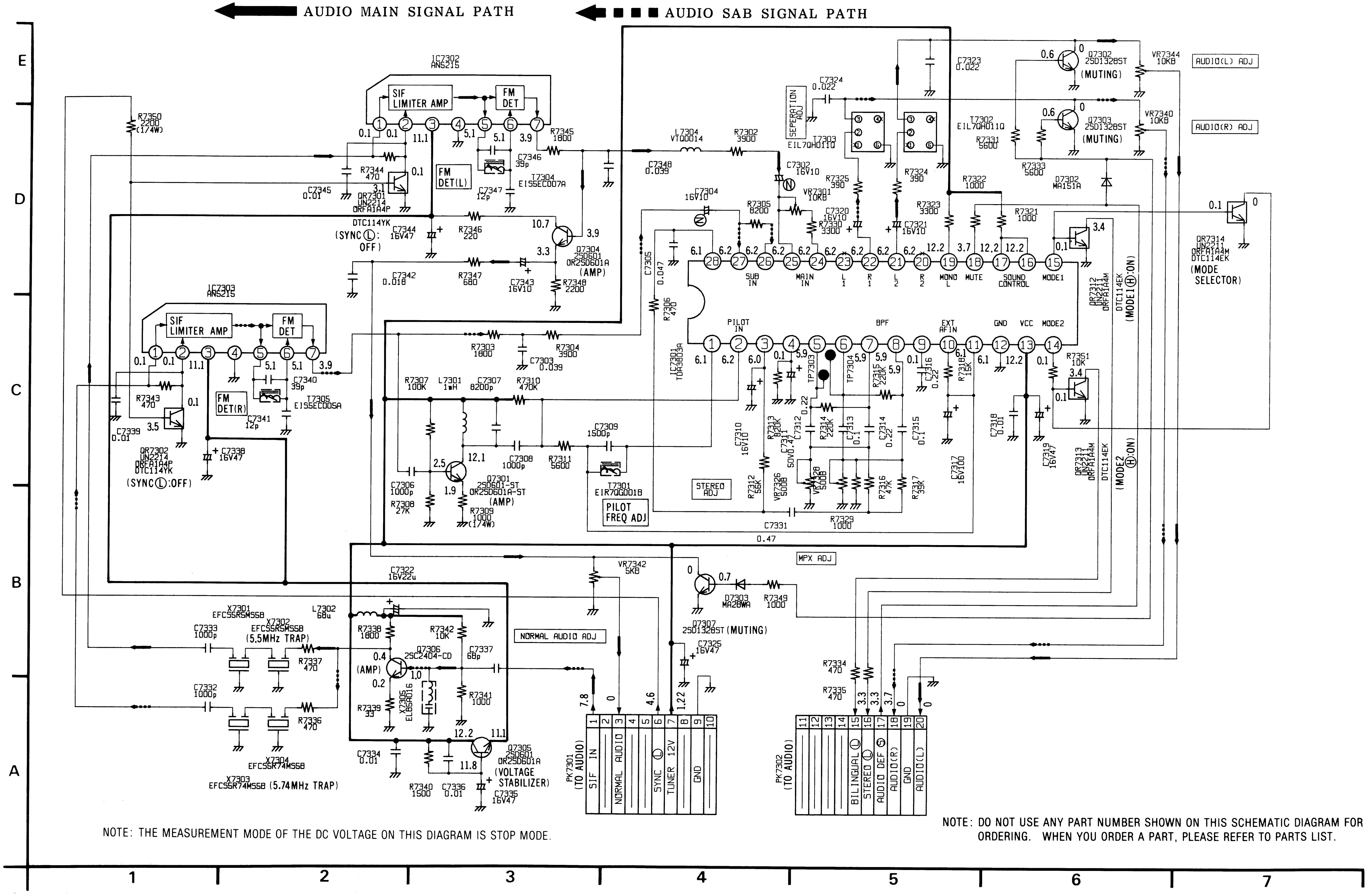

C
B
A
1
2
3
4
5
6
IC701
QR702
QR701
R795
R759
TP704
TP703
C703
C730
D710
C728
C748
R792
L718
T704
AFC
R743
C744
Q712
E C B
R740
R728
C725
R746
T703
VCO
C741
C7651
X711
C739
C743
C745
R744
TP707
C721
L717
C742
C746
L719
R727
R741
R720
L781
Q703
L716
TP709
R745
C727
R719
C781
R781
C740
C731
R750
R725
R718
C722
C723
L715
VR702
V.AGC
VR741
V.FREQ
R737
C782
R782
R724
R726
X717
VR701
U.AGC
C719
C720
R717
C715
TP706
C717
L702
X716
C710
L712
C718
C716
X710
R712
C775
R716
T710
X715
Q710
R715
L714
L711
R713
R714
D773
L701
R796
Ja
TUNER
R747
R7656
QR711
R773
R774
R722
Q771
R772
R738
R721
QR712
R723
C7668
C7653
C708
C792
C702
C701
C707
D7672
R7676
16
20
25
30
15
10
5
1
22
17
16
12
11
7


702
QR701
R795
16
12
11
7
D773
L701
6
1
R796
Ja
Ja
TUNER
TP704
TP703
C730
D710
C728
C748
R792
L718
T704
R743
C744
R740
Q712
E C B
R728
C725
R746
C741
C7651
FC
TP707
X711
C721
L717
R727
Q703
R744
L719
R720
L781
QR711
R741
L716
TP709
R745
30
C727
R719
C781
R781
R7656
R773
R774
R750
C731
R725
VR702
V.AGC
R747
718
C723
L715
VR741
V.FREQ
R722
Q771
C782
R782
R724
R772
R738
1
R726
X717
R721
QR712
C790
717
C715
VR701
U.AGC
X716
L702
L712
C710
C716
R712
C775
X715
R723
C7668
R715
Q710
T710
L711
C7653
C708
C792
C702
C701
D7672
C707
C7672
R713
R7676
R714
3
4
5
6
7
8

TV DEMODULATOR PACK C.B.A.	
Transistor	
Q703	B-4
Q710	A-3
Q712	C-3
Q771	B-5
Transistor & Resistor	
QR701	C-2
QR702	C-2
QR711	B-5
QR712	B-4
Integrated Circuit	
IC701	B-2
Test Point	
TP703	C-3
TP704	C-2
TP706	B-1
TP707	B-3
TP709	B-3
Adjustment	
T703	C-2
T704	C-2
VR701	B-4
VR702	B-4
VR741	B-3

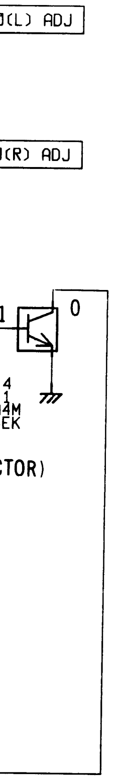
ADDRESS INFORMATION

3-31. DECODER PACK SCHEMATIC DIAGRAM (NV-F70EV)


AUDIO MAIN SIGNAL PATH
AUDIO SAB SIGNAL PATH
E
D
C
B
A
1
2
3
4
5
6
7
IC7302 AN5215
SIF LIMITER AMP
FM DET
FM DET(L)
FM DET(R)
IC7303 AN5215
R7350 2200 (1/4W)
R7344 470
R7345 1800
R7346 220
R7347 680
R7348 2200
C7344 16V47
C7345 0.01
C7346 39p
C7347 12p
C7342 0.018
C7343 16V10
T7304 EISSEC007A
T7305 EISSEC005A
Q7304 2SD601 OR2SD601A (AMP)
QR7301 UN2214 ORFA1A4P DTC114YK (SYNC Ⓛ: OFF)
QR7302 UN2214 ORFA1A4P DTC114YK (SYNC Ⓛ:OFF)
R7343 470
C7339 0.01
C7338 16V47
C7340 39p
C7341 12p
L7304 VTQ0014
R7302 3900
C7348 0.039
C7304 16V10
C7305 0.047
R7305 8200
R7306 470
IC7301 TDA3803A
SUB IN
MAIN IN
MONO
MUTE
SOUND CONTROL
MODE1
PILOT IN
BPF
EXT AF IN
GND
VCC
MODE2
SEPERATION ADJ
C7324 0.022
T7303 EIL70H011Q
T7302 EIL70H011Q
C7323 0.022
C7302 16V10
VR7301 10KB
R7325 390
R7324 390
C7320 16V10
R7330 3300
C7321 16V10
R7322 1000
R7323 3300
R7321 1000
R7331 5600
R7333 5600
D7302 MA151A
Q7302 2SD1328ST (MUTING)
Q7303 2SD1328ST (MUTING)
VR7344 10KB
VR7340 10KB
AUDIO(L) ADJ
AUDIO(R) ADJ
QR7314 UN2211 ORFA1A4M DTC114EK (MODE SELECTOR)
QR7312 UN2211 ORFA1A4M DTC114EK (MODE1 Ⓗ:ON)
QR7313 UN2211 ORFA1A4M DTC114EK (MODE2 Ⓗ:ON)
R7351 10K
R7303 1800
R7304 3900
C7303 0.039
R7307 100K
L7301 1mH
C7307 8200p
R7310 470K
C7309 1500p
C7306 1000p
R7308 27K
Q7301 2SD601-ST OR2SD601A-ST (AMP)
R7309 1000 (1/4W)
C7308 1000p
R7311 5600
T7301 EIR70G001B
PILOT FREQ ADJ
STEREO ADJ
TP7303
TP7304
R7315 220K
R7318 15K
C7316 0.22
C7310 16V10
R7313 820K
C7311 50V0.47
C7312 0.22
R7314 220K
C7313 0.1
C7314 0.22
C7315 0.1
R7312 56K
VR7326 500B
VR7328 500B
R7316 47K
R7317 33K
C7317 16V100
C7318 0.01
C7319 16V47
C7331 0.47
R7329 1000
MPX ADJ
VR7342 5KB
Q7307 2SD1328ST (MUTING)
D7303 MA28WA
R7349 1000
C7325 16V47
C7322 16V22u
X7301 EFCS5R5MS5B
X7302 EFCS5R5MS5B (5.5MHz TRAP)
L7302 68u
C7333 1000p
R7337 470
C7332 1000p
R7336 470
X7304 EFCS5R74MS5B
X7303 EFCS5R74MS5B (5.74MHz TRAP)
R7338 1800
R7342 10K
Q7306 2SC2404-CD (AMP)
C7337 68p
X7305 ELB5A016
R7339 33
R7341 1000
NORMAL AUDIO ADJ
C7334 0.01
R7340 1500
C7336 0.01
Q7305 2SD601 OR2SD601A (VOLTAGE STABILIZER)
C7335 16V47
PK7301 (TO AUDIO)
SIF IN
NORMAL AUDIO
SYNC Ⓛ
TUNER 12V
GND
R7334 470
R7335 470
PK7302 (TO AUDIO)
BILINGUAL Ⓛ
STEREO Ⓛ
AUDIO DEF Ⓢ
AUDIO(R)
GND
AUDIO(L)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

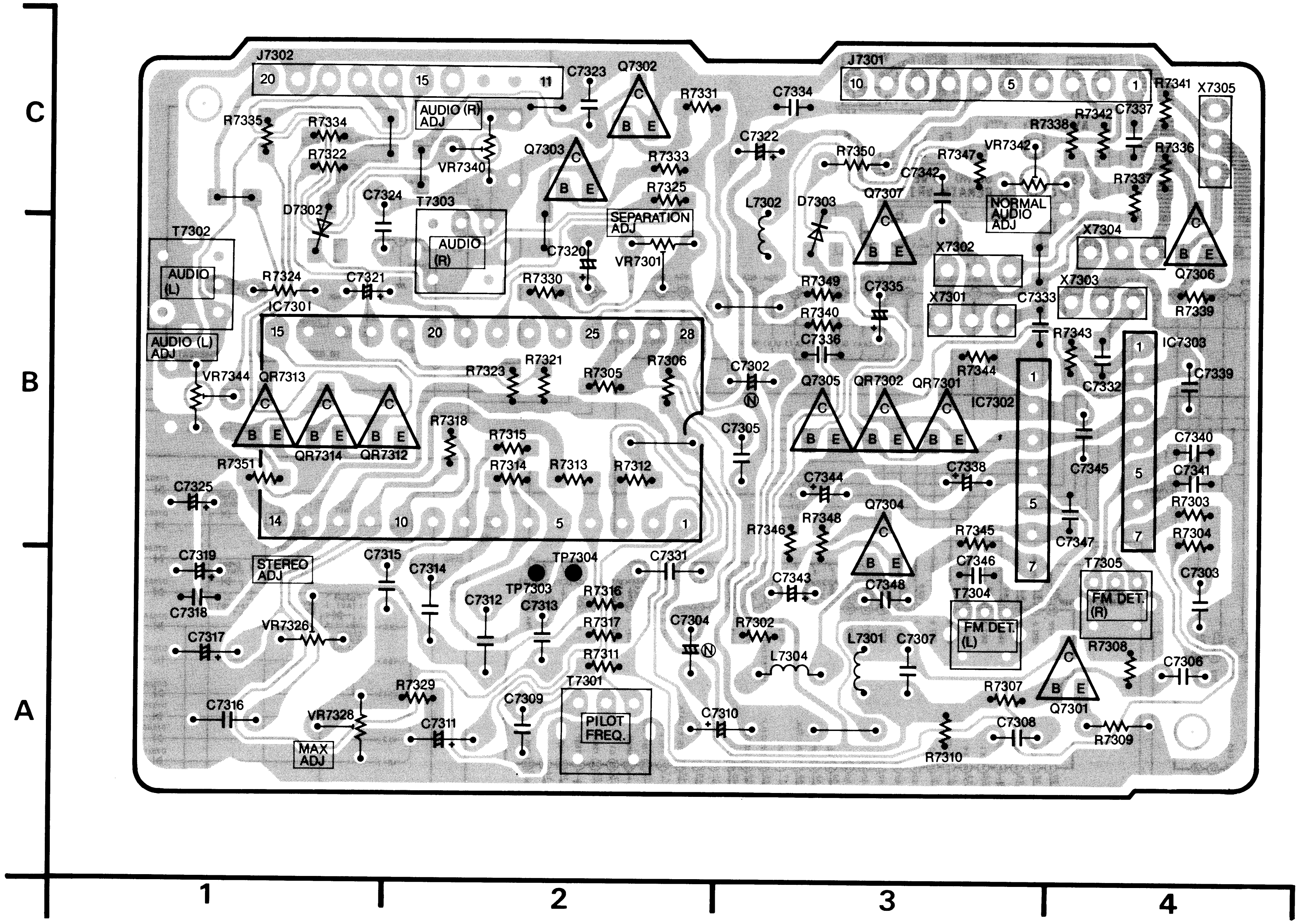
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


(L) ADJ
(R) ADJ
1
0
4
1
4M
EK
TOR)

S SCHEMATIC DIAGRAM FOR
REFER TO PARTS LIST.

7

3-32. DECODER PACK C.B.A. (VEP07537A: NV-F70EV)

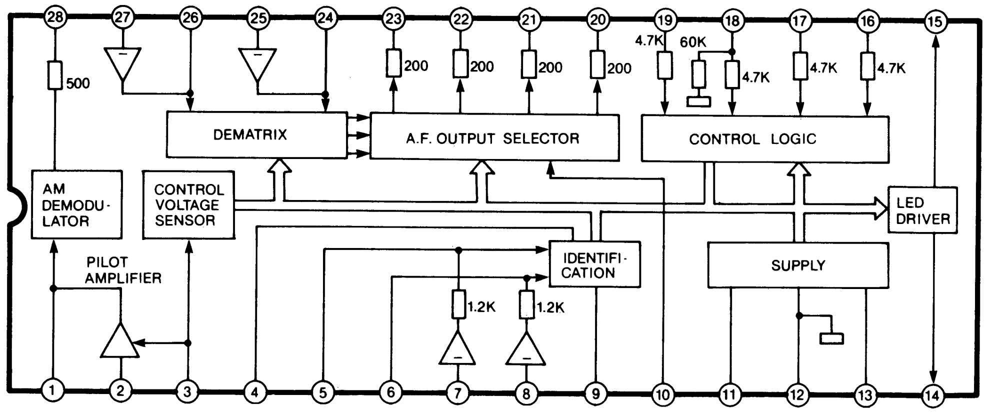

C
B
A
1
2
3
4
J7302
J7301
20
15
11
10
5
1
AUDIO (R) ADJ
VR7340
T7303
AUDIO (R)
T7302
AUDIO (L)
AUDIO (L) ADJ
VR7344
SEPARATION ADJ
VR7301
NORMAL AUDIO ADJ
VR7342
STEREO ADJ
VR7326
MAX ADJ
VR7328
PILOT FREQ.
T7301
FM DET. (L)
T7304
FM DET. (R)
T7305
IC7301
IC7302
IC7303
Q7301
Q7302
Q7303
Q7304
Q7305
Q7306
Q7307
QR7301
QR7302
QR7312
QR7313
QR7314
TP7303
TP7304
X7301
X7302
X7303
X7304
X7305
D7302
D7303
L7301
L7302
L7304
R7301
R7302
R7303
R7304
R7305
R7306
R7307
R7308
R7309
R7310
R7311
R7312
R7313
R7314
R7315
R7316
R7317
R7318
R7321
R7322
R7323
R7324
R7325
R7329
R7330
R7331
R7333
R7334
R7335
R7336
R7337
R7338
R7339
R7340
R7341
R7342
R7343
R7344
R7345
R7346
R7347
R7348
R7349
R7350
R7351
C7302
C7303
C7304
C7305
C7306
C7307
C7308
C7309
C7310
C7311
C7312
C7313
C7314
C7315
C7316
C7317
C7318
C7319
C7320
C7321
C7322
C7323
C7324
C7325
C7331
C7332
C7333
C7334
C7335
C7336
C7337
C7338
C7339
C7340
C7341
C7342
C7343
C7344
C7345
C7346
C7347
C7348
B
C
E
N

DECODER PACK C.B.A.	
Transistor	
Q7301	A-4
Q7302	C-2
Q7303	C-2
Q7304	B-3
Q7305	B-3
Q7306	B-4
Q7307	C-3
Transistor & Resistor	
QR7301	B-3
QR7302	B-3
QR7312	B-2
QR7313	B-1
QR7314	B-1
Integrated Circuit	
IC7301	B-1
IC7302	B-3
IC7303	B-4
Test Point	
TP7303	A-2
TP7304	A-2
Adjustment	
T7301	A-2
T7302	B-1
T7303	C-2
T7304	A-3
T7305	A-4
VR7301	B-2
VR7326	A-1
VR7328	A-1
VR7340	C-2
VR7342	C-3
VR7344	B-1

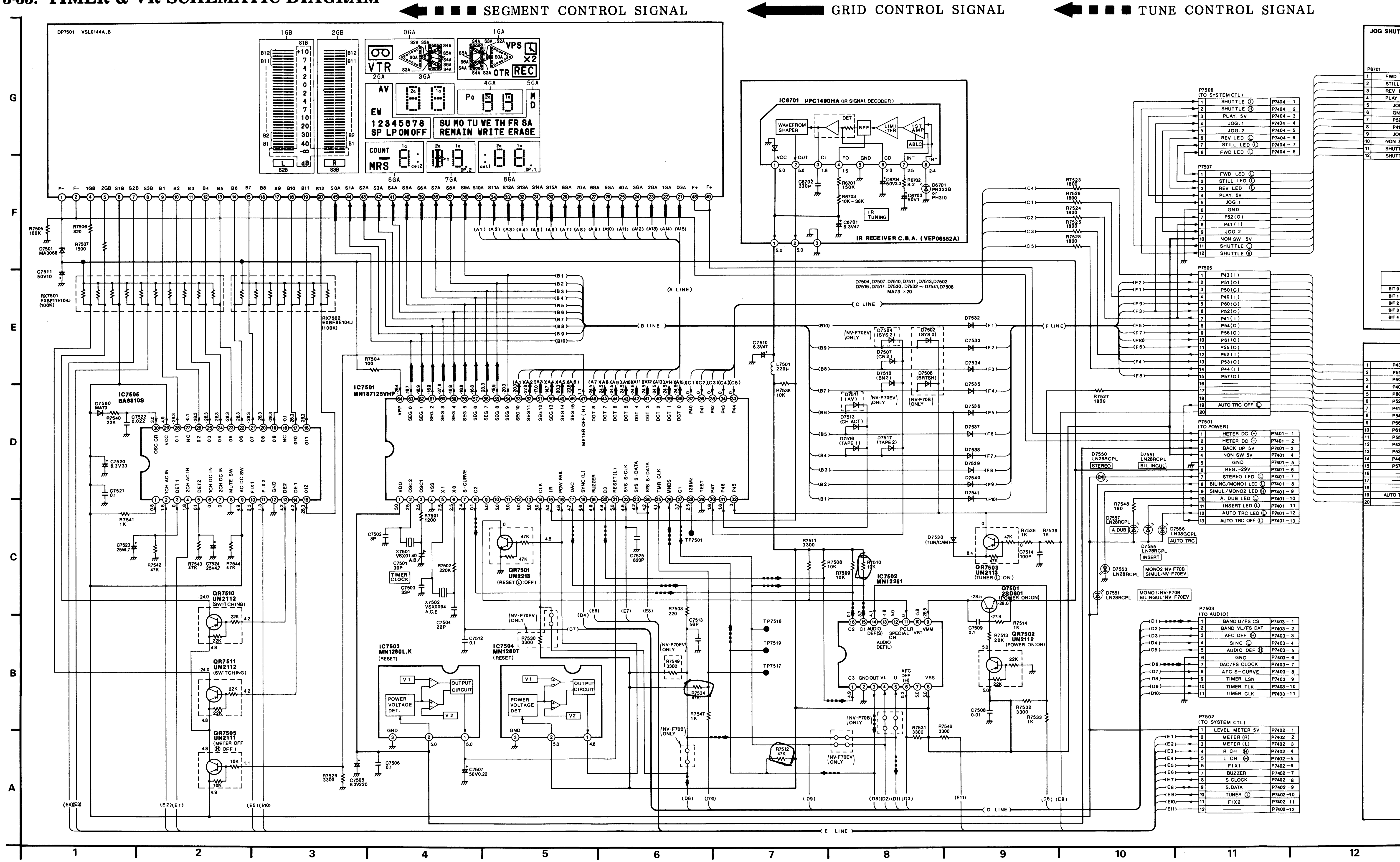
ADDRESS INFORMATION

IC BLOCK

IC7301 (TDA3803A)


28
27
26
25
24
23
22
21
20
19
18
17
16
15
500
200
200
200
200
4.7K
60K
4.7K
4.7K
4.7K
DEMATRIX
A.F. OUTPUT SELECTOR
CONTROL LOGIC
AM DEMODU-LATOR
CONTROL VOLTAGE SENSOR
LED DRIVER
PILOT AMPLIFIER
IDENTIFI-CATION
SUPPLY
1.2K
1.2K
1
2
3
4
5
6
7
8
9
10
11
12
13
14

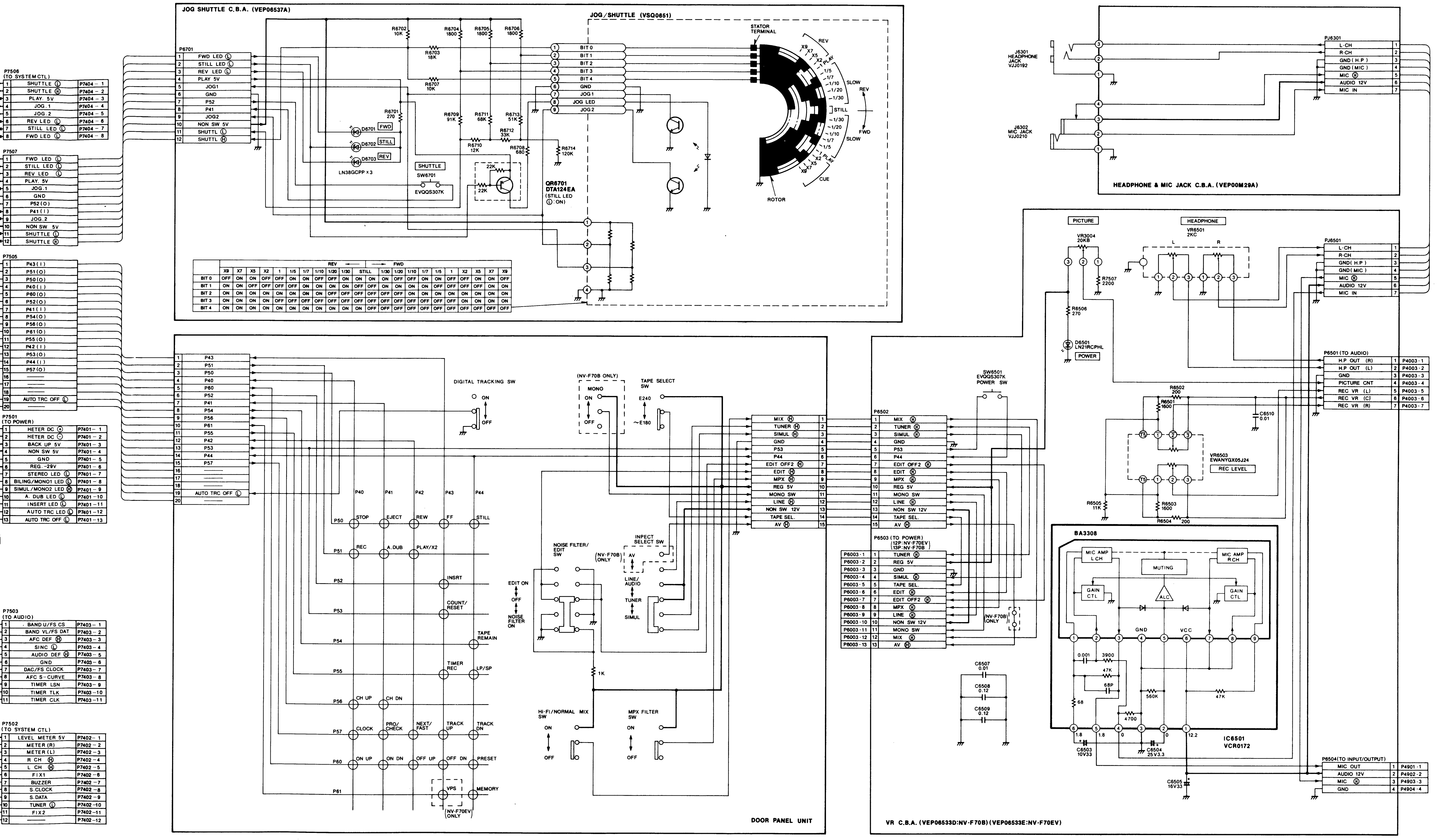
3-33. TIMER & VR SCHEMATIC DIAGRAM


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
DP7501 VSL0144A,B
IC6701 μPC1490HA (IR SIGNAL DECODER)
IR RECEIVER C.B.A. (VEP06552A)
IC7505 BA6810S
IC7501 MN187125VHP
IC7502 MN12261
IC7503 MN1280L,K (RESET)
IC7504 MN1280T (RESET)
QR7501 UN2213 (RESET Ⓛ:OFF)
QR7502 UN2112 (POWER ON:ON)
QR7503 UN2113 (TUNER Ⓛ:ON)
QR7505 UN2111 (METER OFF Ⓗ:OFF)
QR7510 UN2112 (SWITCHING)
QR7511 UN2112 (SWITCHING)
Q7501 2SD601 (POWER ON:ON)
P7501 (TO POWER)
P7502 (TO SYSTEM CTL)
P7503 (TO AUDIO)
P7505
P7506 (TO SYSTEM CTL)
P7507
P6701
JOG SHUT
A LINE
B LINE
C LINE
D LINE
E LINE
F LINE
TIMER CLOCK
R7512 47K
R7534 47K
R7510 10K
1
2
3
4
5
6
7
8
9
10
11
12
G
F
E
D
C
B
A

Back Page:
DECODER PACK Section

Die drei markierten Widerstände
ändern in 2,2K (Hoppe) 5.4.90

ONTROL SIGNAL

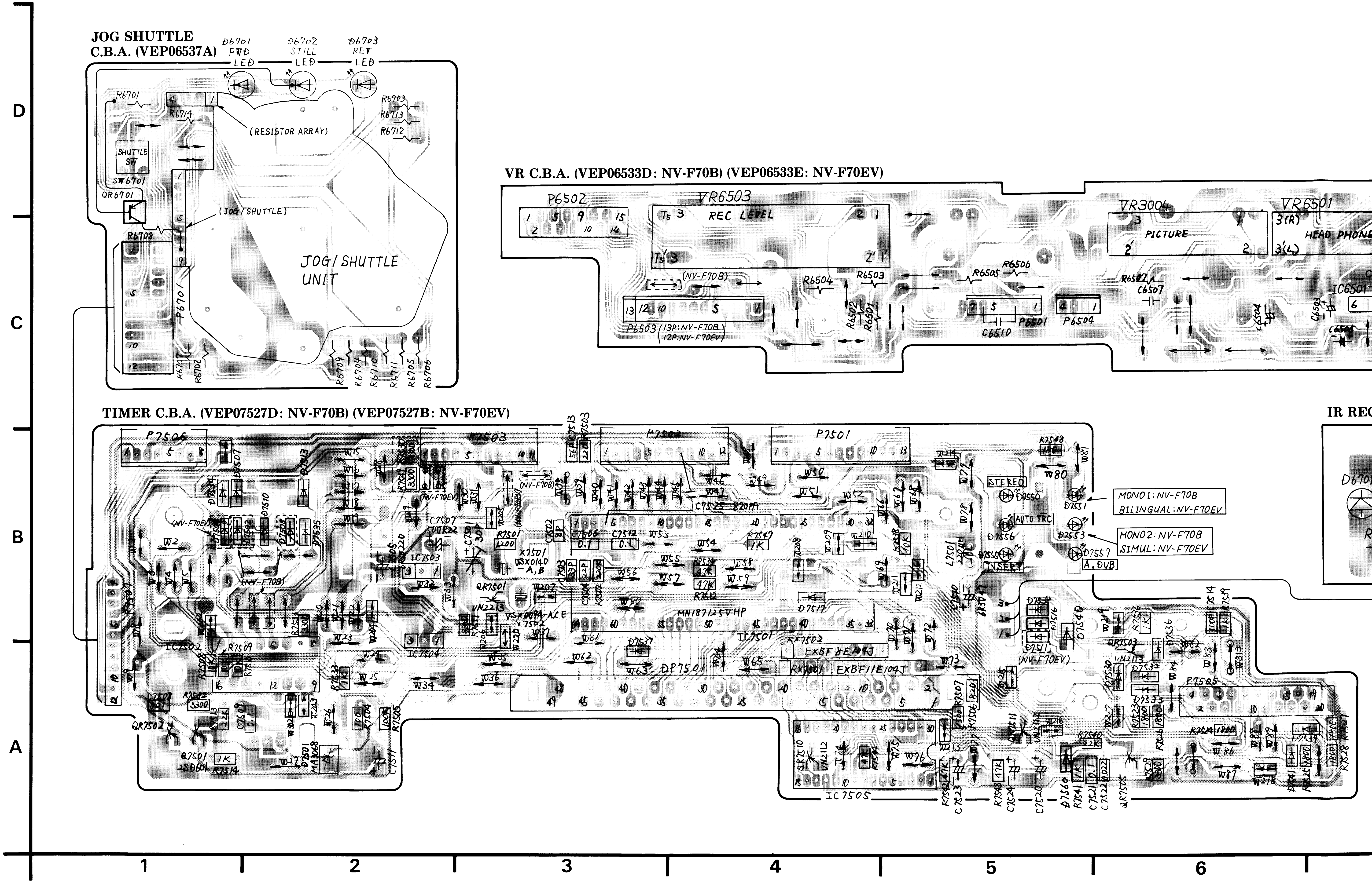

JOG SHUTTLE C.B.A. (VEP06537A)
JOG/SHUTTLE (VSQ0651)
P7506
(TO SYSTEM CTL)
1 SHUTTLE Ⓛ P7404 - 1
2 SHUTTLE Ⓗ P7404 - 2
3 PLAY. 5V P7404 - 3
4 JOG.1 P7404 - 4
5 JOG.2 P7404 - 5
6 REV LED Ⓛ P7404 - 6
7 STILL LED Ⓛ P7404 - 7
8 FWD LED Ⓛ P7404 - 8
P7507
1 FWD LED Ⓛ
2 STILL LED Ⓛ
3 REV LED Ⓛ
4 PLAY. 5V
5 JOG.1
6 GND
7 P52(O)
8 P41(I)
9 JOG.2
10 NON SW 5V
11 SHUTTLE Ⓛ
12 SHUTTLE Ⓗ
P7505
1 P43(I)
2 P51(O)
3 P50(O)
4 P40(I)
5 P60(O)
6 P52(O)
7 P41(I)
8 P54(O)
9 P56(O)
10 P61(O)
11 P55(O)
12 P42(I)
13 P53(O)
14 P44(I)
15 P57(O)
16 ——
17 ——
18 ——
19 AUTO TRC OFF Ⓛ
20 ——
P7501
(TO POWER)
1 HETER DC ⊕ P7401 - 1
2 HETER DC ⊖ P7401 - 2
3 BACK UP 5V P7401 - 3
4 NON SW 5V P7401 - 4
5 GND P7401 - 5
6 REG. -29V P7401 - 6
7 STEREO LED Ⓛ P7401 - 7
8 BILING/MONO1 LED Ⓛ P7401 - 8
9 SIMUL/MONO2 LED Ⓗ P7401 - 9
10 A. DUB LED Ⓛ P7401 -10
11 INSERT LED Ⓛ P7401 -11
12 AUTO TRC LED Ⓛ P7401 -12
13 AUTO TRC OFF Ⓛ P7401 -13
P7503
(TO AUDIO)
1 BAND U/FS CS P7403 - 1
2 BAND VL/FS DAT P7403 - 2
3 AFC DEF Ⓗ P7403 - 3
4 SINC Ⓛ P7403 - 4
5 AUDIO DEF Ⓗ P7403 - 5
6 GND P7403 - 6
7 DAC/FS CLOCK P7403 - 7
8 AFC S-CURVE P7403 - 8
9 TIMER LSN P7403 - 9
10 TIMER TLK P7403 -10
11 TIMER CLK P7403 -11
P7502
(TO SYSTEM CTL)
1 LEVEL METER 5V P7402 - 1
2 METER (R) P7402 - 2
3 METER (L) P7402 - 3
4 R CH Ⓗ P7402 - 4
5 L CH Ⓗ P7402 - 5
6 FIX1 P7402 - 6
7 BUZZER P7402 - 7
8 S.CLOCK P7402 - 8
9 S.DATA P7402 - 9
10 TUNER Ⓛ P7402 -10
11 FIX2 P7402 -11
12 —— P7402 -12
P6701
1 FWD LED Ⓛ
2 STILL LED Ⓛ
3 REV LED Ⓛ
4 PLAY 5V
5 JOG1
6 GND
7 P52
8 P41
9 JOG2
10 NON SW 5V
11 SHUTTL Ⓛ
12 SHUTTL Ⓗ
R6702 10K
R6704 1800
R6705 1800
R6706 1800
R6703 18K
R6707 10K
R6701 270
R6709 91K
R6711 68K
R6713 51K
R6712 33K
R6710 12K
R6708 680
R6714 120K
D6701 FWD
D6702 STILL
D6703 REV
LN38GCPP x 3
SHUTTLE
SW6701
EVQQS307K
22K
22K
QR6701
DTA124EA
(STILL LED Ⓛ: ON)
1 BIT 0
2 BIT 1
3 BIT 2
4 BIT 3
5 BIT 4
6 GND
7 JOG 1
8 JOG LED
9 JOG 2
STATOR TERMINAL
ROTOR
REV
X9
X7
X5
X2
PLAY
1/5
1/7
1/10
1/20
1/30
SLOW
STILL
FWD
CUE
1
2
3
4
1 P43
2 P51
3 P50
4 P40
5 P60
6 P52
7 P41
8 P54
9 P56
10 P61
11 P55
12 P42
13 P53
14 P44
15 P57
16 ——
17 ——
18
19 AUTO TRC OFF Ⓛ
20 ——
DIGITAL TRACKING SW
ON
OFF
(NV-F70B ONLY)
MONO
ON
OFF
TAPE SELECT SW
E240
E180
P40
P41
P42
P43
P44
P50 STOP EJECT REW FF STILL
P51 REC A.DUB PLAY/X2
P52 INSRT
P53 COUNT/RESET
P54 TAPE REMAIN
P55 TIMER REC LP/SP
P56 CH UP CH DN
P57 CLOCK PRO/CHECK NEXT/FAST TRACK UP TRACK DN
P60 ON UP ON DN OFF UP OFF DN PRESET
P61 VPS MEMORY
(NV-F70EV ONLY)
NOISE FILTER/EDIT SW
EDIT ON
OFF
NOISE FILTER ON
INPECT SELECT SW
(NV-F70B ONLY)
AV
LINE/AUDIO
TUNER
SIMUL
1K
HI-FI/NORMAL MIX SW
ON
OFF
MPX FILTER SW
ON
OFF
DOOR PANEL UNIT
MIX Ⓗ 1
TUNER Ⓗ 2
SIMUL Ⓗ 3
GND 4
P53 5
P44 6
EDIT OFF2 Ⓗ 7
EDIT Ⓗ 8
MPX Ⓗ 9
REG 5V 10
MONO SW 11
LINE Ⓗ 12
NON SW 12V 13
TAPE SEL. 14
AV Ⓗ 15
P6502
1 MIX Ⓗ
2 TUNER Ⓗ
3 SIMUL Ⓗ
4 GND
5 P53
6 P44
7 EDIT OFF2 Ⓗ
8 EDIT Ⓗ
9 MPX Ⓗ
10 REG 5V
11 MONO SW
12 LINE Ⓗ
13 NON SW 12V
14 TAPE SEL.
15 AV Ⓗ
P6503 (TO POWER)
(12P:NV-F70EV)
(13P:NV-F70B)
P6003 - 1 1 TUNER Ⓗ
P6003 - 2 2 REG 5V
P6003 - 3 3 GND
P6003 - 4 4 SIMUL Ⓗ
P6003 - 5 5 TAPE SEL.
P6003 - 6 6 EDIT Ⓗ
P6003 - 7 7 EDIT OFF2 Ⓗ
P6003 - 8 8 MPX Ⓗ
P6003 - 9 9 LINE Ⓗ
P6003 - 10 10 NON SW 12V
P6003 - 11 11 MONO SW
P6003 - 12 12 MIX Ⓗ
P6003 - 13 13 AV Ⓗ
SW6501
EVQQS307K
POWER SW
(NV-F70B) ONLY
C6507 0.01
C6508 0.12
C6509 0.12
J6301
HEADPHONE JACK
VJJ0192
J6302
MIC JACK
VJJ0210
PJ6301
L-CH 1
R-CH 2
GND (H.P) 3
GND (MIC) 4
MIC Ⓗ 5
AUDIO 12V 6
MIC IN 7
HEADPHONE & MIC JACK C.B.A. (VEP00M29A)
PICTURE
VR3004
20KB
R7507 2200
R6506 270
D6501
LN21RCPHL
POWER
HEADPHONE
VR6501
2KC
L
R
PJ6501
L-CH 1
R-CH 2
GND (H.P) 3
GND (MIC) 4
MIC Ⓗ 5
AUDIO 12V 6
MIC IN 7
P6501 (TO AUDIO)
H.P OUT (R) 1 P4003 - 1
H.P OUT (L) 2 P4003 - 2
GND 3 P4003 - 3
PICTURE CNT 4 P4003 - 4
REC VR (L) 5 P4003 - 5
REC VR (C) 6 P4003 - 6
REC VR (R) 7 P4003 - 7
R6502 200
R6501 1600
C6510 0.01
VR6503
EWANYGX05J24
REC LEVEL
R6505 11K
R6503 1600
R6504 200
BA3308
MIC AMP L CH
MIC AMP R CH
MUTING
GAIN CTL
ALC
GAIN CTL
GND
VCC
0.001
3900
47K
68P
560K
47K
68
4700
1.8
1.8
0
0
12.2
C6503 10V33
C6504 25V3.3
C6505 16V33
IC6501
VCR0172
P6504 (TO INPUT/OUTPUT)
MIC OUT 1 P4901 - 1
AUDIO 12V 2 P4902 - 2
MIC Ⓗ 3 P4903 - 3
GND 4 P4904 - 4
VR C.B.A. (VEP06533D:NV-F70B) (VEP06533E:NV-F70EV)

	REV ←										→ FWD											
	X9	X7	X5	X2	1	1/5	1/7	1/10	1/20	1/30	STILL		1/30	1/20	1/10	1/7	1/5	1	X2	X5	X7	X9
BIT 0	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF
BIT 1	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON
BIT 2	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
BIT 3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON
BIT 4	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-34. TIMER C.B.A. (VEP07527D: NV-F70B) (VEP07527B: NV-F70EV) & VR C.B.A. (VEP06533D: NV-F70B) (VEP06533E: NV-F70EV)

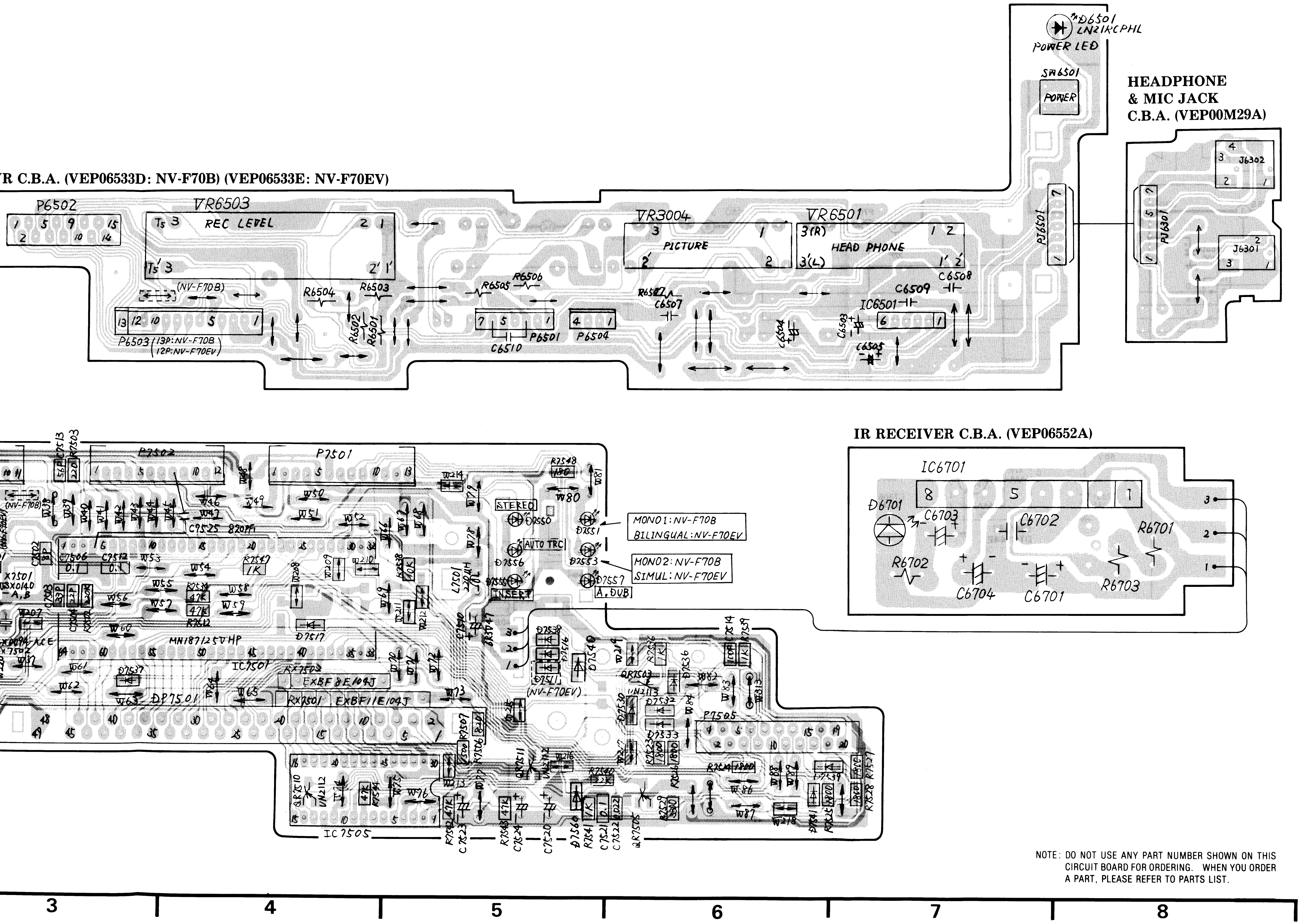


JOG SHUTTLE C.B.A. (VEP06537A)
D6701 FWD LED
D6702 STILL LED
D6703 REV LED
R6701
R6714
(RESISTOR ARRAY)
R6703
R6713
R6712
SHUTTLE SW
SW6701
QR6701
(JOG/SHUTTLE)
R6708
P6701
JOG/SHUTTLE UNIT
R6707
R6702
R6709
R6704
R6710
R6711
R6705
R6706
VR C.B.A. (VEP06533D: NV-F70B) (VEP06533E: NV-F70EV)
P6502
VR6503
REC LEVEL
VR3004
PICTURE
VR6501
HEAD PHONE
(NV-F70B)
R6504
R6503
R6502
R6501
R6505
R6506
R6507
C6507
IC6501
C6504
C6503
C6505
P6503 (13P: NV-F70B) (12P: NV-F70EV)
C6510
P6501
P6504
TIMER C.B.A. (VEP07527D: NV-F70B) (VEP07527B: NV-F70EV)
P7506
P7503
P7502
P7501
R7548
W80
W81
STEREO
D7550
D7551
AUTO TRC
D7556
D7553
INSERT
D7557
A.DUB
MONO1: NV-F70B
BILINGUAL: NV-F70EV
MONO2: NV-F70B
SIMUL: NV-F70EV
C9525 820P
C7506
C7512
C7507
C7501 30P
R7501
X7501 USX0140-A, B
QR7501
UN2213
IC7503
IC7504
IC7502
R7509
MN187125VHP
IC7501
D7517
RX7503 EXBF8E104J
RX7501 EXBF11E104J
DP7501
L7501 220μH
D7537
D7540
QR7503
UN2113
(NV-F70EV)
(NV-F70B)
D7541
P7505
R7524
IC7505
UN2112
QR7502
Q7501 2SD601
R7514
C7508
R7508
C7509
D7501 MA4068
C7511
R7504
R7505
R7523
C7523
R7545
C7524
C7520
D7560
R7534
C7521
C7522
QR7505
R7529
R7527
R7528
D6701
IR REC
1
2
3
4
5
6
A
B
C
D

R C.B.A. (VEP06533D: NV-F70B) (VEP06533E: NV-F70EV)

HEADPHONE & MIC JACK C.B.A. (VEP00M29A)

IR RECEIVER C.B.A. (VEP06552A)


D6501 LN21RCPHL
POWER LED
SW6501
POWER
P6502
VR6503
REC LEVEL
VR3004
PICTURE
VR6501
HEAD PHONE
3(R)
3'(L)
PJ6501
J6302
J6301
PJ6301
(NV-F70B)
R6504
R6503
R6505
R6506
R6502
R6501
R6507
C6507
C6509
C6508
IC6501
C6504
C6503
C6505
C6510
P6501
P6504
P6503 (13P: NV-F70B) (12P: NV-F70EV)
IC6701
D6701
C6703
C6702
R6701
R6702
C6704
C6701
R6703
P7502
P7501
C7525 820P
STEREO
D7550
AUTO TRC
D7556
INSERT
D7551
D7553
D7557
A.DUB
MONO1: NV-F70B
BILINGUAL: NV-F70EV
MONO2: NV-F70B
SIMUL: NV-F70EV
X7501
CSX0140
X7502
C7506
C7512
L7501
MN187125VHP
IC7501
RX7502
EXBF8E104J
RX7501
EXBF11E104J
DP7501
D7517
D7537
D7538
D7511 (NV-F70EV)
D7540
QR7503
UN2113
D7530
D7532
D7533
P7505
D7539
QR7510
UN2112
QR7511
UN4112
IC7505
QR7505
R7548
R7547
R7512
3
4
5
6
7
8

TIMER C.B.A. & VR C.B.A.

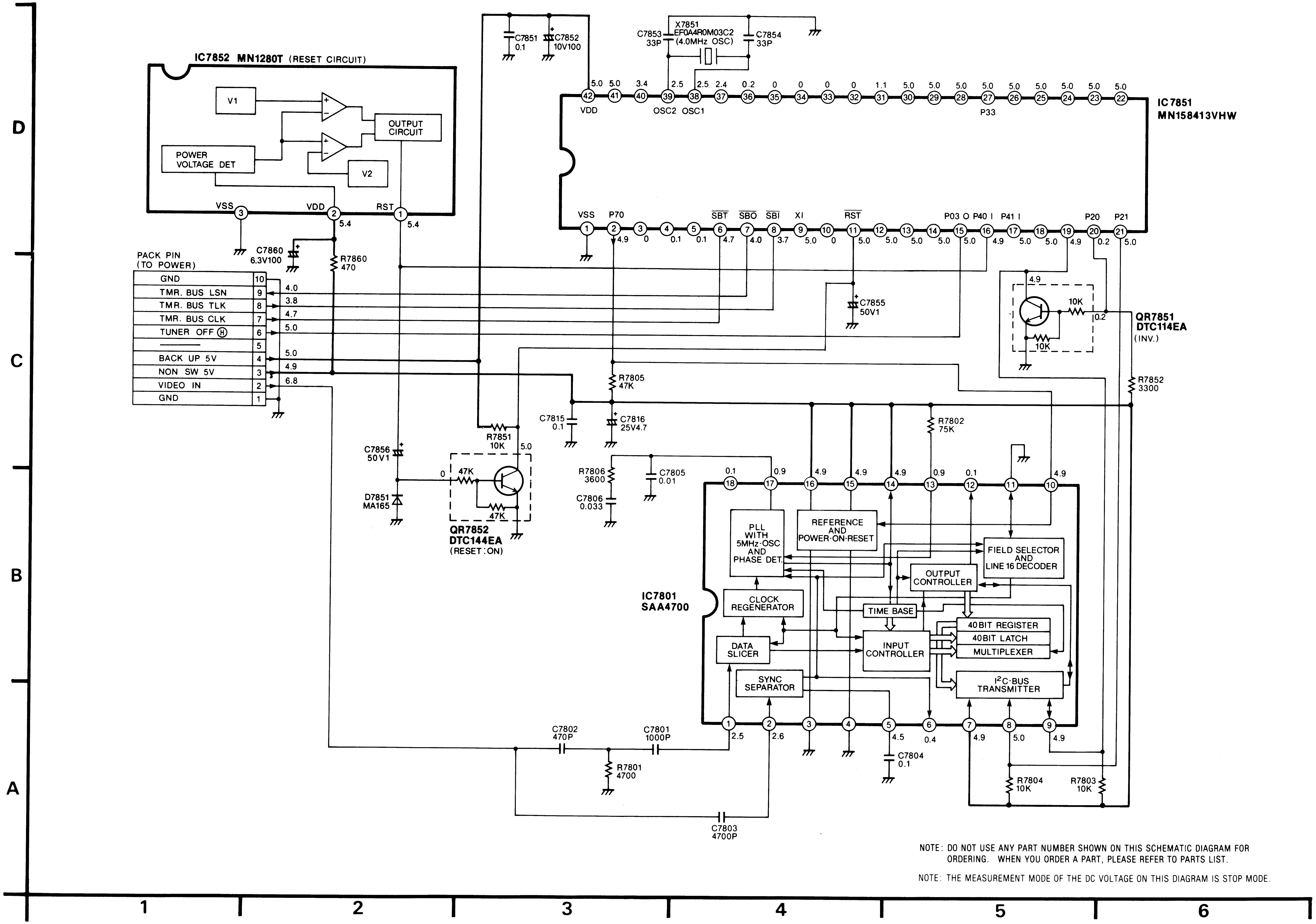
Transistor	
Q7501	A-1
Transistor & Resistor	
QR6701	D-1
QR7501	B-3
QR7502	A-1
QR7503	A-6
QR7505	A-6
QR7510	A-4
QR7511	A-5
Integrated Circuit	
IC6501	C-7
IC6701	B-7
IC7501	B-4
IC7502	A-1
IC7503	B-2
IC7504	A-2
IC7505	A-4
Adjustment	
C7501	B-3
VR3004	D-6
VR6501	D-7
VR6503	D-4
Connector	
P6501	C-5
P6502	D-3
P6503	C-3
P6504	C-5
P6701	C-1
P7501	B-4
P7502	B-3
P7503	B-3
P7505	A-6
P7506	B-1
P7507	B-1
PJ6501	C-7
PJ6301	C-8

ADDRESS INFORMATION

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

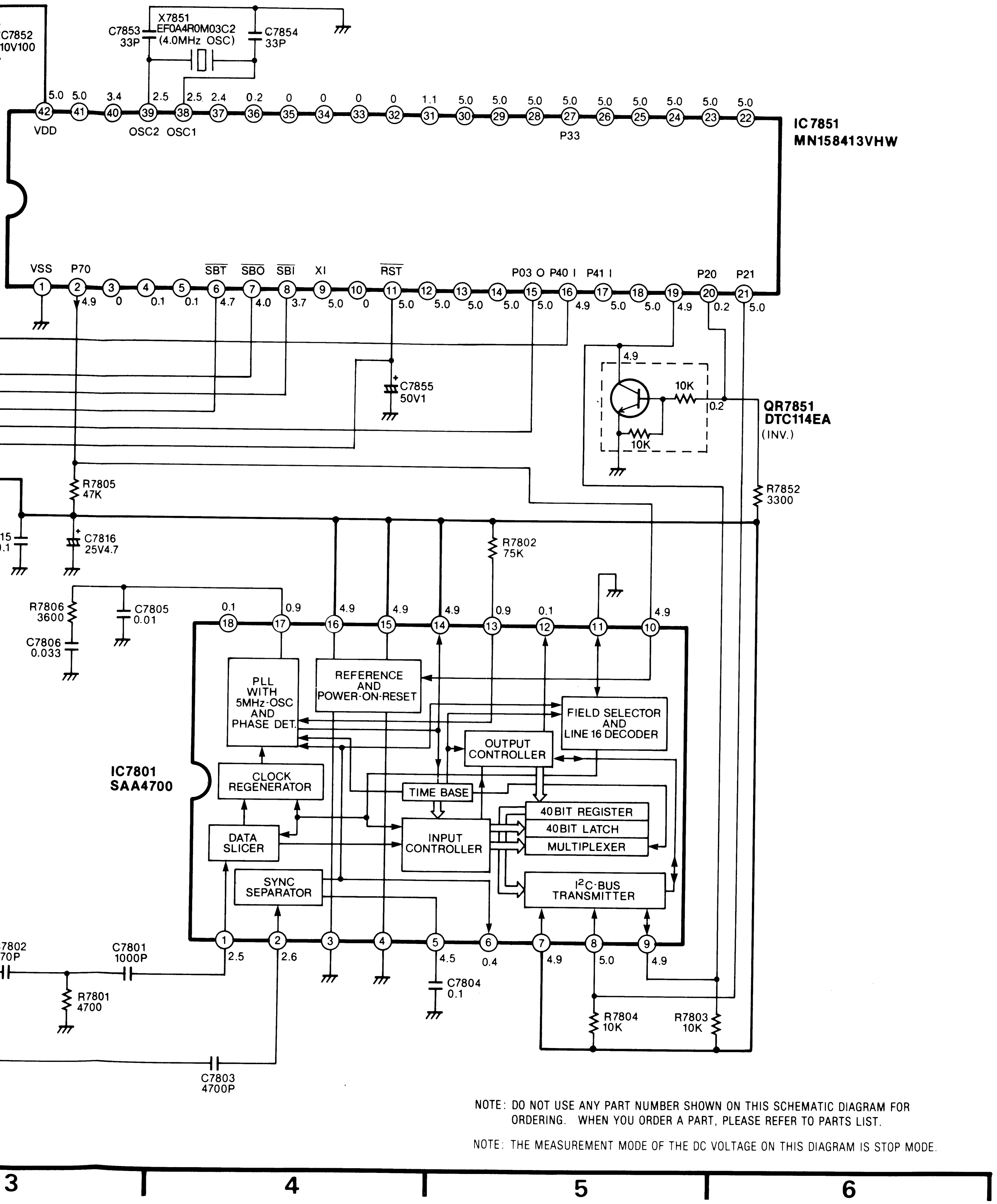
Next Page:
VPS PACK Section

3-35. VPS PACK SCHEMATIC DIAGRAM (NV-F70EV)


IC7852 MN1280T (RESET CIRCUIT)
V1
V2
OUTPUT CIRCUIT
POWER VOLTAGE DET
VSS
VDD
RST
5.4
C7860 6.3V100
R7860 470
PACK PIN (TO POWER)
GND
TMR. BUS LSN
TMR. BUS TLK
TMR. BUS CLK
TUNER OFF Ⓗ
BACK UP 5V
NON SW 5V
VIDEO IN
GND
4.0
3.8
4.7
5.0
5.0
4.9
6.8
C7851 0.1
C7852 10V100
X7851 EF0A4R0M03C2 (4.0MHz OSC)
C7853 33P
C7854 33P
IC7851 MN158413VHW
VDD
OSC2
OSC1
P33
VSS
P70
SBT
SBO
SBI
XI
RST
P03 O
P40 I
P41 I
P20
P21
C7855 50V1
QR7851 DTC114EA (INV.)
10K
10K
R7852 3300
R7805 47K
C7815 0.1
C7816 25V4.7
R7851 10K
C7856 50V1
D7851 MA165
47K
47K
QR7852 DTC144EA (RESET:ON)
R7806 3600
C7806 0.033
C7805 0.01
R7802 75K
IC7801 SAA4700
PLL WITH 5MHz-OSC AND PHASE DET.
REFERENCE AND POWER-ON-RESET
FIELD SELECTOR AND LINE 16 DECODER
OUTPUT CONTROLLER
CLOCK REGENERATOR
TIME BASE
40BIT REGISTER
40BIT LATCH
MULTIPLEXER
DATA SLICER
INPUT CONTROLLER
SYNC SEPARATOR
I²C-BUS TRANSMITTER
C7802 470P
C7801 1000P
R7801 4700
C7803 4700P
C7804 0.1
R7804 10K
R7803 10K
A
B
C
D
1
2
3
4
5
6

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.


X7851
EF0A4R0M03C2
(4.0MHz OSC)
C7853 33P
C7854 33P
C7852 10V100
IC7851
MN158413VHW
VDD
OSC2 OSC1
P33
VSS P70 SBT SBO SBI XI RST P03 O P40 I P41 I P20 P21
C7855 50V1
QR7851
DTC114EA
(INV.)
10K
R7852 3300
R7805 47K
C7816 25V4.7
R7802 75K
R7806 3600
C7805 0.01
C7806 0.033
IC7801
SAA4700
PLL WITH 5MHz-OSC AND PHASE DET.
REFERENCE AND POWER-ON-RESET
FIELD SELECTOR AND LINE 16 DECODER
OUTPUT CONTROLLER
CLOCK REGENERATOR
TIME BASE
40BIT REGISTER
40BIT LATCH
MULTIPLEXER
DATA SLICER
INPUT CONTROLLER
SYNC SEPARATOR
I²C-BUS TRANSMITTER
C7801 1000P
R7801 4700
C7804 0.1
R7804 10K
R7803 10K
C7803 4700P
3
4
5
6

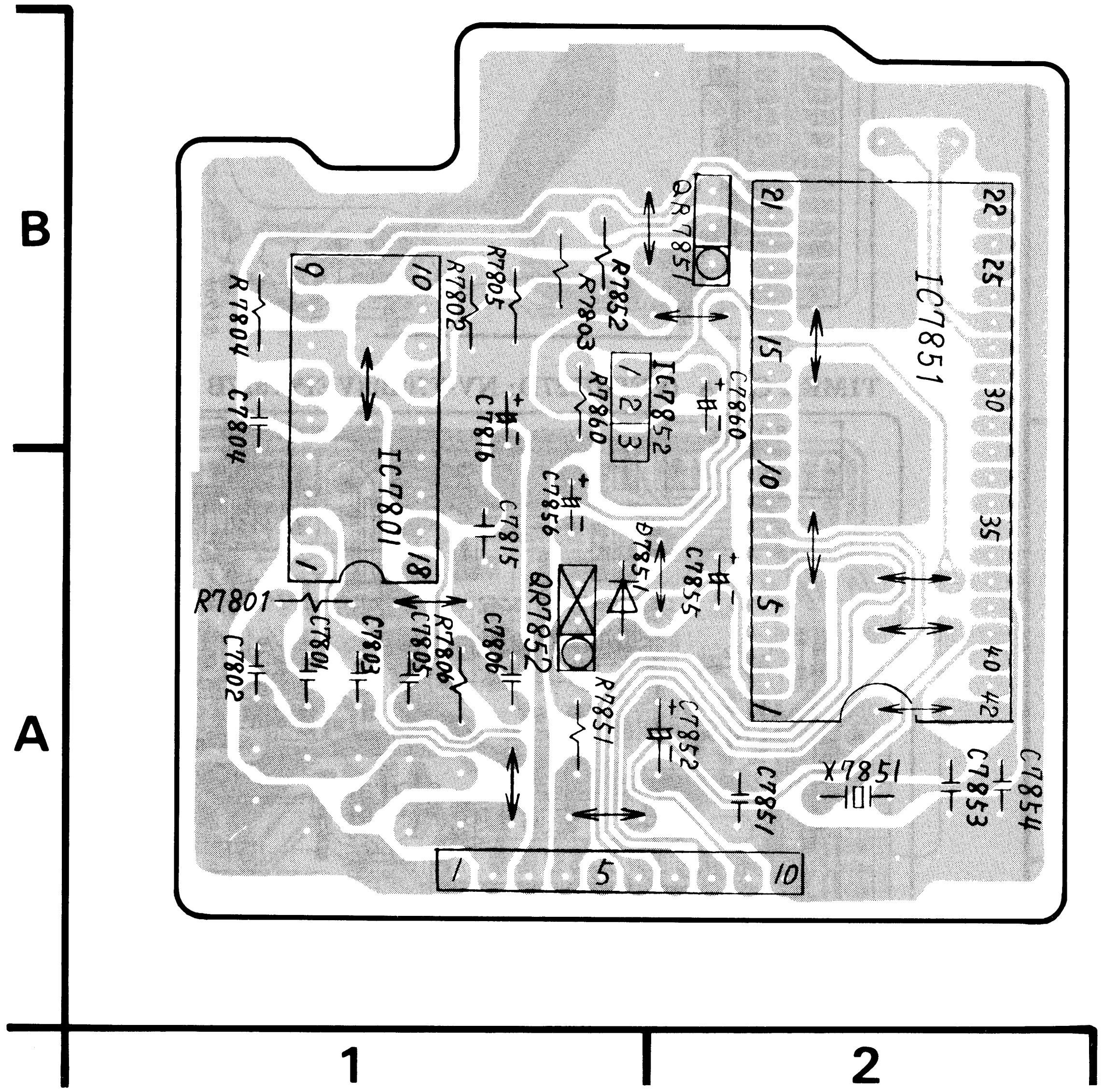
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

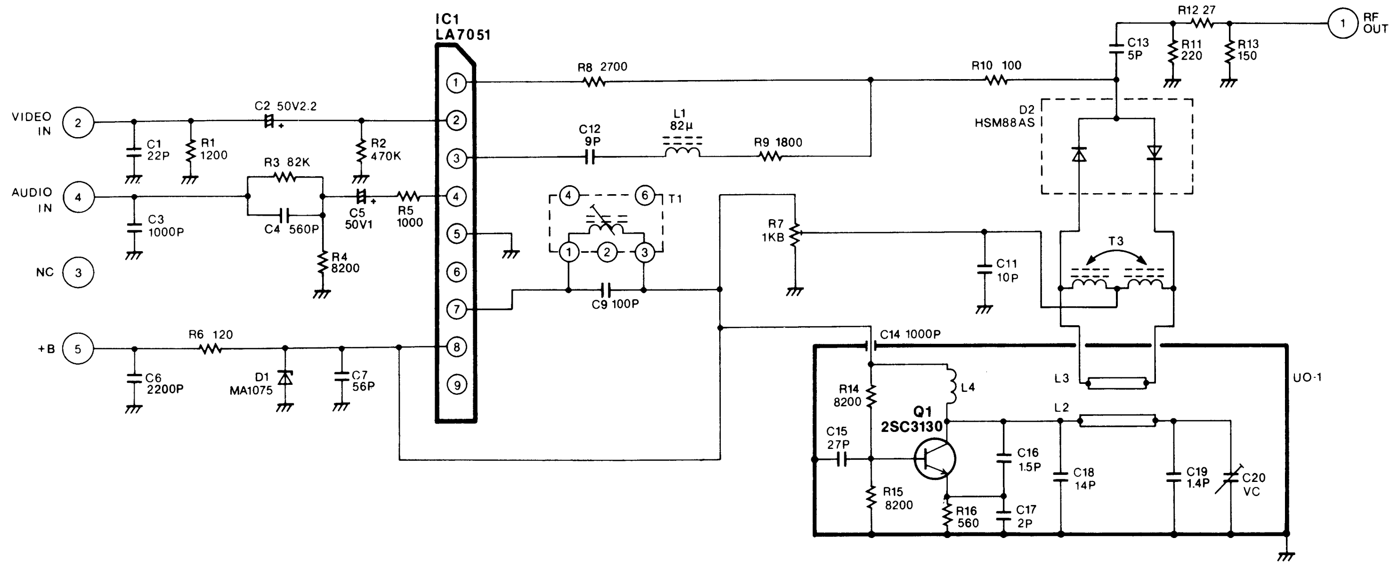
3-36. VPS PACK C.B.A. (VEP07538A: NV-F70EV)

VPS PACK C.B.A.	
Transistor & Resistor	
QR7851	B-2
QR7852	A-1
Integrated Circuit	
IC7801	A-1
IC7851	B-2
IC7852	B-2

ADDRESS INFORMATION

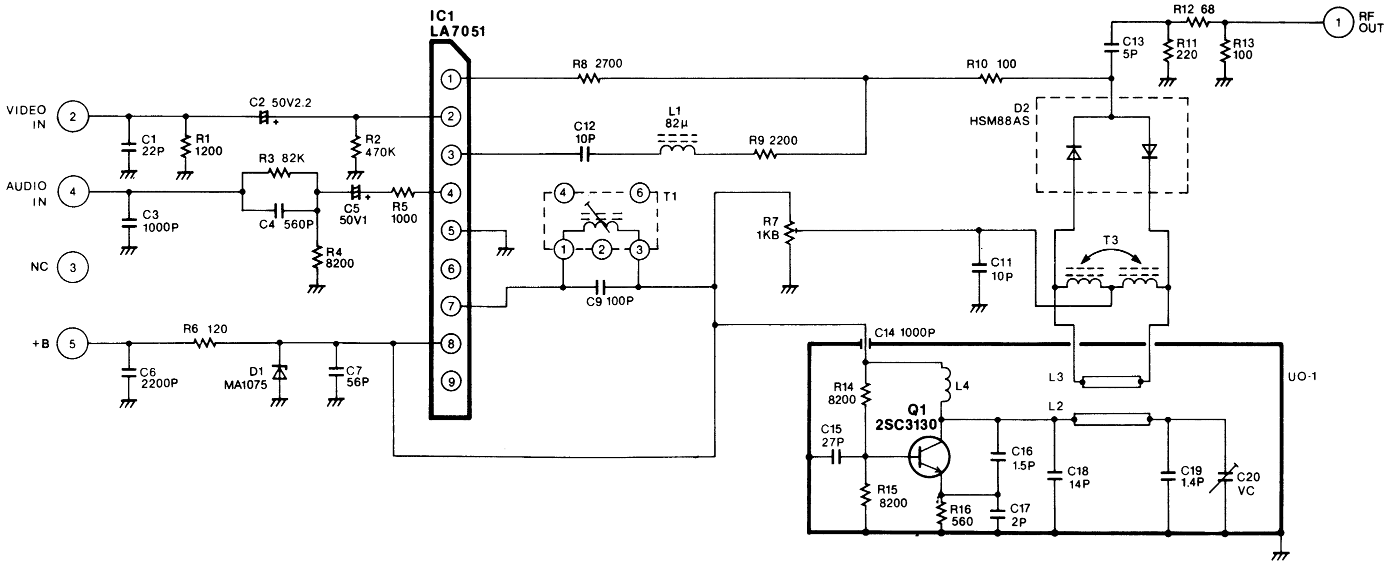

B
A
1
2
IC7851
IC7801
IC7852
QR7851
QR7852
R7801
R7802
R7803
R7804
R7805
R7806
R7851
R7852
R7860
C7801
C7802
C7803
C7804
C7805
C7806
C7815
C7816
C7851
C7852
C7853
C7854
C7855
C7856
C7860
D7851
X7851

3-37. RF CONVERTER SCHEMATIC DIAGRAM (ENC17952: NV-F70B)


IC1
LA7051
VIDEO IN ②
AUDIO IN ④
NC ③
+B ⑤
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C3 1000P
C4 560P
C5 50V1
R4 8200
R5 1000
R6 120
C6 2200P
D1 MA1075
C7 56P
R8 2700
C12 9P
L1 82µ
R9 1800
R10 100
T1
C9 100P
R7 1KB
C11 10P
D2 HSM88AS
R12 27
C13 5P
R11 220
R13 150
RF OUT ①
T3
C14 1000P
R14 8200
L4
Q1 2SC3130
C15 27P
R15 8200
R16 560
C16 1.5P
C17 2P
L3
L2
C18 14P
C19 1.4P
C20 VC
UO-1

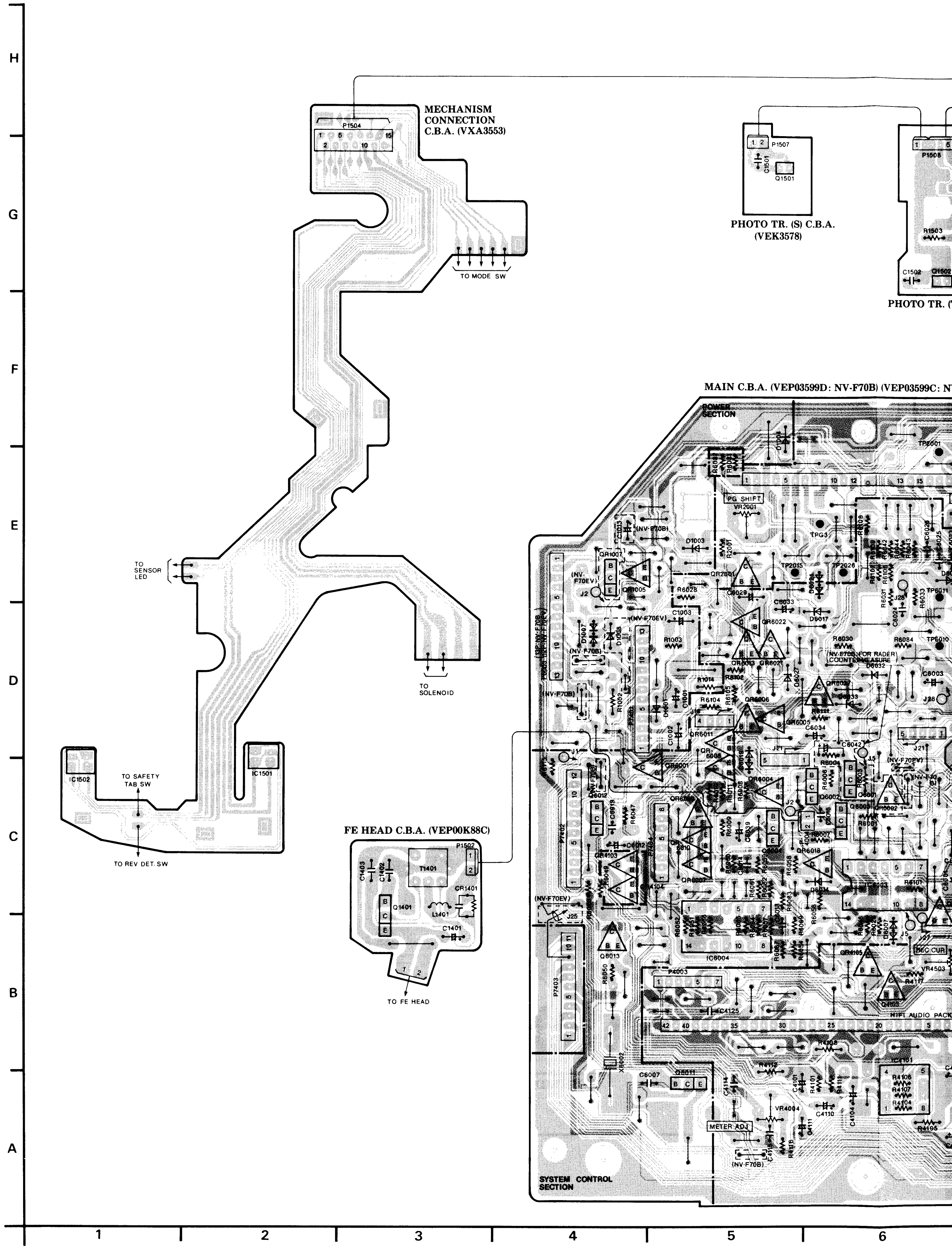
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-38. RF CONVERTER SCHEMATIC DIAGRAM (ENC17954: NV-F70EV)


IC1
LA7051
VIDEO IN ②
AUDIO IN ④
NC ③
+B ⑤
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C3 1000P
C4 560P
C5 50V1
R4 8200
R5 1000
R6 120
C6 2200P
D1 MA1075
C7 56P
R8 2700
C12 10P
L1 82µ
R9 2200
R10 100
T1
C9 100P
R7 1KB
C11 10P
D2 HSM88AS
R12 68
C13 5P
R11 220
R13 100
RF OUT ①
T3
C14 1000P
R14 8200
L4
Q1 2SC3130
C15 27P
R15 8200
R16 560
C16 1.5P
C17 2P
L3
L2
C18 14P
C19 1.4P
C20 VC
UO-1

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-39. MAIN C.B.A. (VEP03599D: NV-F70B) (VEP03599C: NV-F70EV)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
MECHANISM CONNECTION C.B.A. (VXA3553)
P1504
TO MODE SW
PHOTO TR. (S) C.B.A. (VEK3578)
P1507
Q1501
P1508
R1503
C1502
PHOTO TR.
TO SENSOR LED
TO SOLENOID
IC1502
IC1501
TO SAFETY TAB SW
TO REV DET. SW
FE HEAD C.B.A. (VEP00K88C)
P1502
T1401
Q1401
L1401
C1401
CR1401
TO FE HEAD
MAIN C.B.A. (VEP03599D: NV-F70B) (VEP03599C: N
POWER SECTION
PG SHIFT
VR2001
TP6001
TPG3
TP2013
TP2026
FOR RADER COUNTER MEASURE
IC6004
IC4125
METER ADJ
VR4004
VR4503
REC CUR
HIFI AUDIO PACK
(NV-F70B)
(NV-F70EV)
SYSTEM CONTROL SECTION

NV-F70EV)

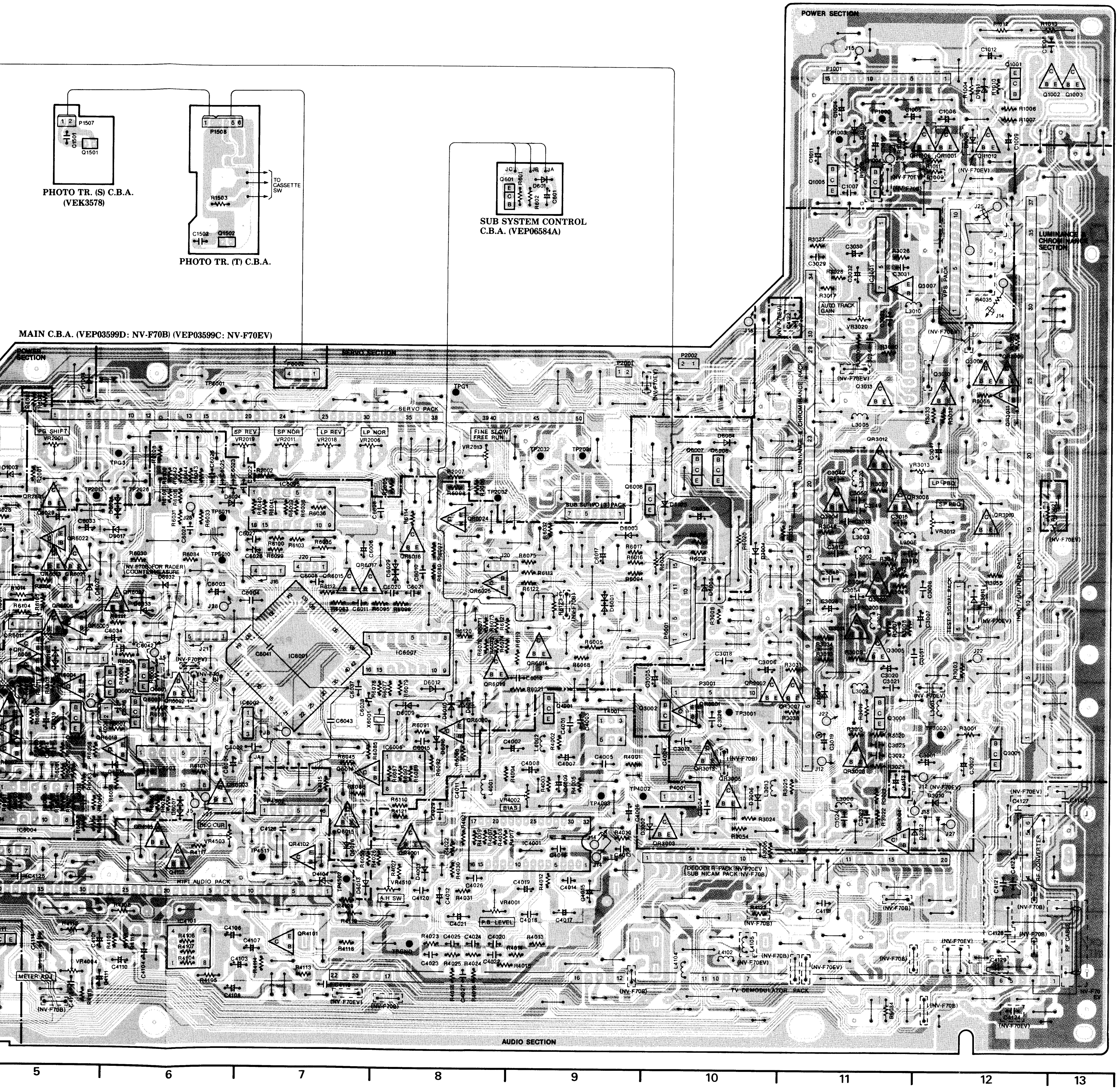


PHOTO TR. (S) C.B.A.
(VEK3578)
PHOTO TR. (T) C.B.A.
TO CASSETTE SW
SUB SYSTEM CONTROL C.B.A. (VEP06584A)
MAIN C.B.A. (VEP03599D: NV-F70B) (VEP03599C: NV-F70EV)
POWER SECTION
SERVO SECTION
LUMINANCE & CHROMINANCE SECTION
AUDIO SECTION
SERVO PACK
HIFI AUDIO PACK
DECODER PACK (NV-F70EV)
SUB NICAM PACK (NV-F70B)
TV DEMODULATOR PACK
RF CONVERTER
5
6
7
8
9
10
11
12
13

MAIN C.B.A. ADDRESS INFORMATION

SYSTEM CONTROL Section	
Transistor	
Q601	G-8
Q1401	C-3
Q1501	G-5
Q1502	G-6
Q6001	C-6
Q6002	C-6
Q6003	C-6
Q6004	C-5
Q6006	E-10
Q6007	E-10
Q6008	E-9
Q6011	A-5
Q6012	C-4
Q6013	B-4
Q6014	C-7
Q6015	B-7
Transistor & Resistor	
QR6001	C-5
QR6002	C-6
QR6003	C-6
QR6004	C-5
QR6005	D-5
QR6006	D-5
QR6007	C-5
QR6008	D-5
QR6009	C-5
QR6010	C-5
QR6011	D-5
QR6013	D-5
QR6014	C-9
QR6015	D-7
QR6016	D-8
QR6017	D-7
QR6018	C-6
QR6019	C-8
QR6020	C-8
QR6021	D-5
QR6022	D-5
QR6024	E-8
QR6025	D-8
QR6027	D-6
Integrated Circuit	
IC1501	C-2
IC1502	C-1
IC6001	D-7
IC6002	C-7
IC6003	C-6
IC6004	B-5
IC6005	E-7
IC6006	C-8
IC6007	D-8
Test Point	
TP6010	D-6
TP6011	E-6
Connector	
P1502	C-3
P1504	H-3
P1507	G-5
P1508	G-6
P4004	C-6
P6001	D-10
P6002	F-7
P7402	C-4
P7404	C-5

ADDRESS INFORMATION

POWER Section	
Transistor	
Q1001	H-12
Q1002	H-12
Q1003	H-13
Q1004	G-11
Q1005	G-11
Transistor & Resistor	
QR1001	G-12
QR1005	E-14
QR1006	G-12
QR1007	E-4
QR1012	G-12
Test Point	
TP1002	H-11
TP1003	G-11
Connector	
P1001	H-11
P6003	D-4
P7401	D-4

ADDRESS INFORMATION

LUMINANCE & CHROMINANCE Section	
Transistor	
Q3001	C-12
Q3002	C-10
Q3003	D-11
Q3004	E-11
Q3005	D-11
Q3006	C-11
Q3007	F-12
Q3009	F-12
Q3010	F-12
Q3011	D-11
Q3013	E-11
Transistor & Resistor	
QR3001	C-10
QR3002	C-10
QR3003	B-10
QR3004	B-11
QR3005	C-10
QR3006	E-11
QR3007	C-11
QR3008	C-11
QR3009	F-12
QR3010	E-12
QR3011	E-12
QR3012	E-11
QR3013	C-10
Integrated Circuit	
IC3001	F-11
Test Point	
TP3001	C-10
TP3002	C-12
Adjustment	
VR3012	D-12
VR3013	E-12
VR3020	F-11
Connector	
P3001	C-10

ADDRESS INFORMATION

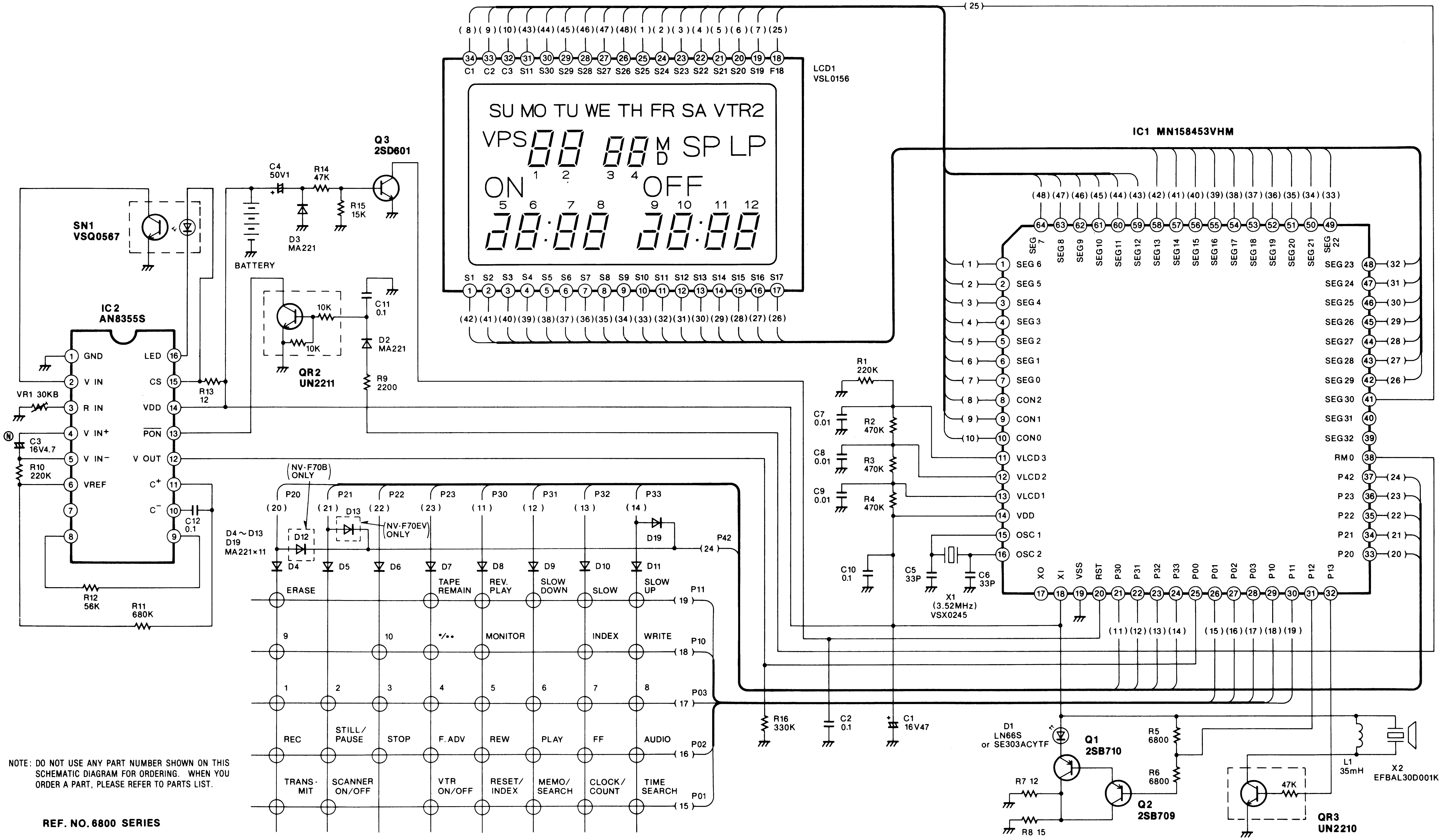
SERVO Section	
Transistor & Resistor	
QR2001	E-5
Test Point	
TP2001	E-6
TP2002	E-8
TP2015	E-5
TP2026	E-6
TP2031	E-9
TP2032	E-9
TPG1	E-8
TPG3	E-6
Adjustment	
VR2001	E-5
VR2006	E-7
VR2011	E-7
VR2013	E-8
VR2018	E-7
VR2019	E-7
Connector	
P2001	F-9
P2002	F-10

ADDRESS INFORMATION

AUDIO Section	
Transistor	
Q4001	C-9
Q4103	B-6
Transistor & Resistor	
QR4001	B-8
QR4101	A-7
QR4102	B-7
QR4103	C-4
QR4104	C-4
QR4105	B-6
Integrated Circuit	
IC4001	B-9
IC4101	B-6
Test Point	
TP4002	C-9
TP4003	B-9
TP4502	B-7
TP4511	B-7
TPGND	A-8
Adjustment	
VR4001	B-8
VR4002	B-9
VR4004	A-5
VR4503	B-6
VR4510	B-8
Connector	
P4001	C-10
P4002	B-7
P4003	B-5
P7403	B-4

ADDRESS INFORMATION

3-40. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) SCHEMATIC DIAGRAM
— UNIT NO.: VEQ0913 (NV-F70B), VEQ0910 (NV-F70EV) —

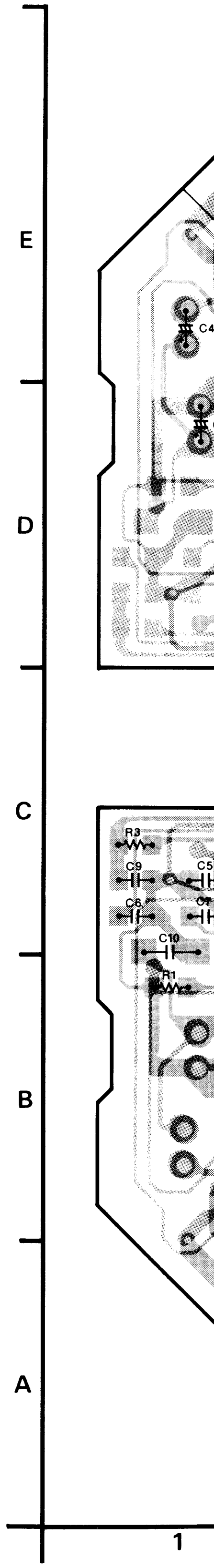

LCD1
VSL0156
C1 C2 C3 S11 S30 S29 S28 S27 S26 S25 S24 S23 S22 S21 S20 S19 F18
S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17
SU MO TU WE TH FR SA VTR2
VPS 88 88 M D SP LP
ON OFF
IC1 MN158453VHM
SEG 6
SEG 5
SEG 4
SEG 3
SEG 2
SEG 1
SEG 0
CON 2
CON 1
CON 0
VLCD 3
VLCD 2
VLCD 1
VDD
OSC 1
OSC 2
XO XI VSS RST P30 P31 P32 P33 P00 P01 P02 P03 P10 P11 P12 P13
SEG 7 SEG 8 SEG 9 SEG 10 SEG 11 SEG 12 SEG 13 SEG 14 SEG 15 SEG 16 SEG 17 SEG 18 SEG 19 SEG 20 SEG 21 SEG 22
SEG 23
SEG 24
SEG 25
SEG 26
SEG 27
SEG 28
SEG 29
SEG 30
SEG 31
SEG 32
RM 0
P42
P23
P22
P21
P20
SN1
VSQ0567
IC 2
AN8355S
GND
V IN
R IN
V IN+
V IN−
VREF
LED
CS
VDD
PON
V OUT
C+
C−
VR1 30KB
C3
16V4.7
R10
220K
R12
56K
R11
680K
R13
12
C12
0.1
C4
50V1
R14
47K
R15
15K
D3
MA221
BATTERY
Q3
2SD601
QR2
UN2211
10K
10K
C11
0.1
D2
MA221
R9
2200
R1
220K
C7
0.01
R2
470K
C8
0.01
R3
470K
C9
0.01
R4
470K
C10
0.1
C5
33P
C6
33P
X1
(3.52MHz)
VSX0245
R16
330K
C2
0.1
C1
16V47
D1
LN66S
or SE303ACYTF
Q1
2SB710
R5
6800
R6
6800
R7 12
R8 15
Q2
2SB709
QR3
UN2210
47K
L1
35mH
X2
EFBAL30D001K
(NV-F70B) ONLY
(NV-F70EV) ONLY
D4～D13
D19
MA221×11
D12
D13
D4 D5 D6 D7 D8 D9 D10 D11 D19
P20 P21 P22 P23 P30 P31 P32 P33
P42
P11 P10 P03 P02 P01
ERASE
TAPE REMAIN
REV. PLAY
SLOW DOWN
SLOW
SLOW UP
9
10
*/••
MONITOR
INDEX
WRITE
1 2 3 4 5 6 7 8
REC
STILL/ PAUSE
STOP
F. ADV
REW
PLAY
FF
AUDIO
TRANS-MIT
SCANNER ON/OFF
VTR ON/OFF
RESET/ INDEX
MEMO/ SEARCH
CLOCK/ COUNT
TIME SEARCH

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

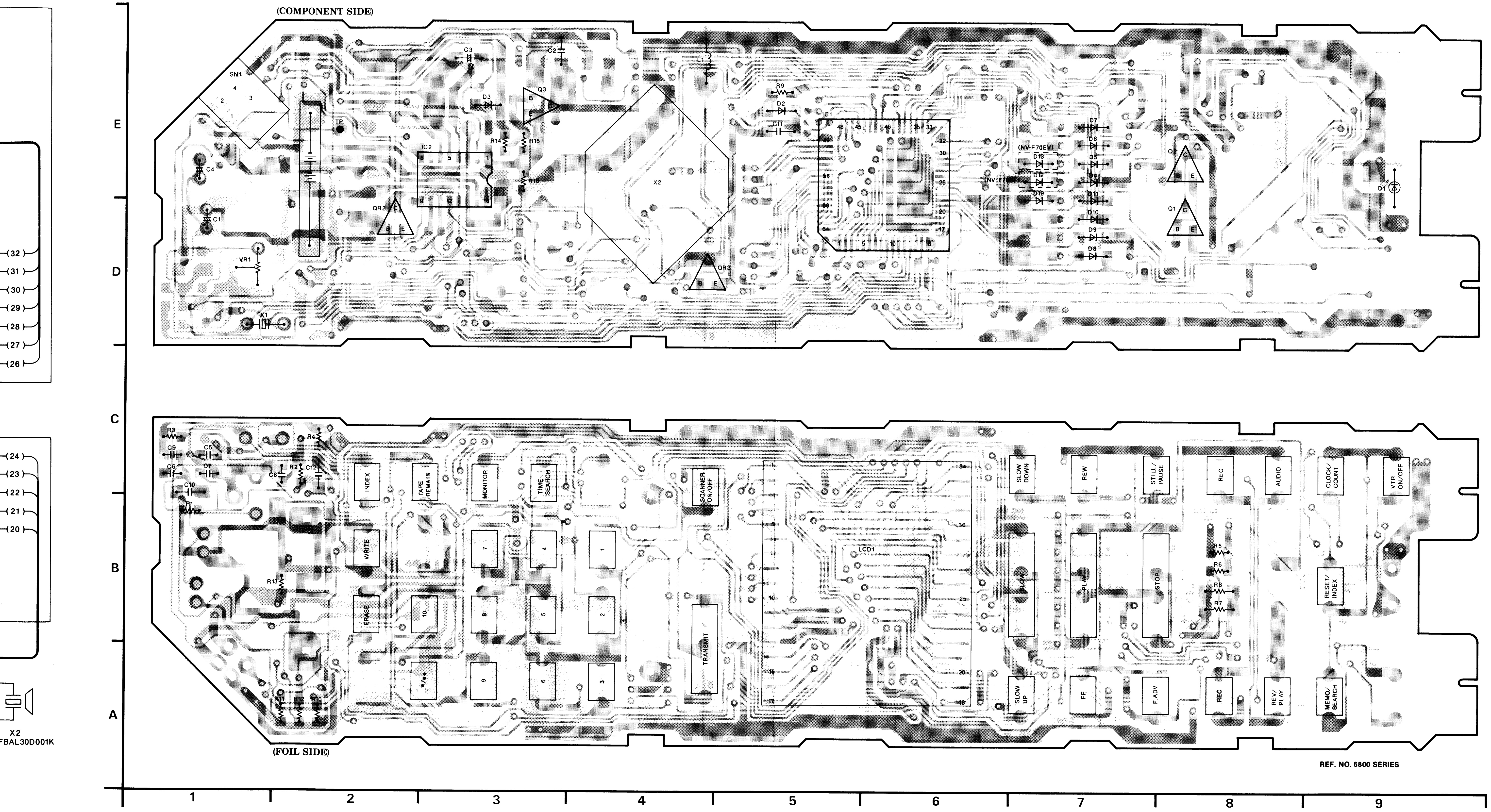
REF. NO. 6800 SERIES

Back Page:
MAIN C.B.A. & RF CONV. Section

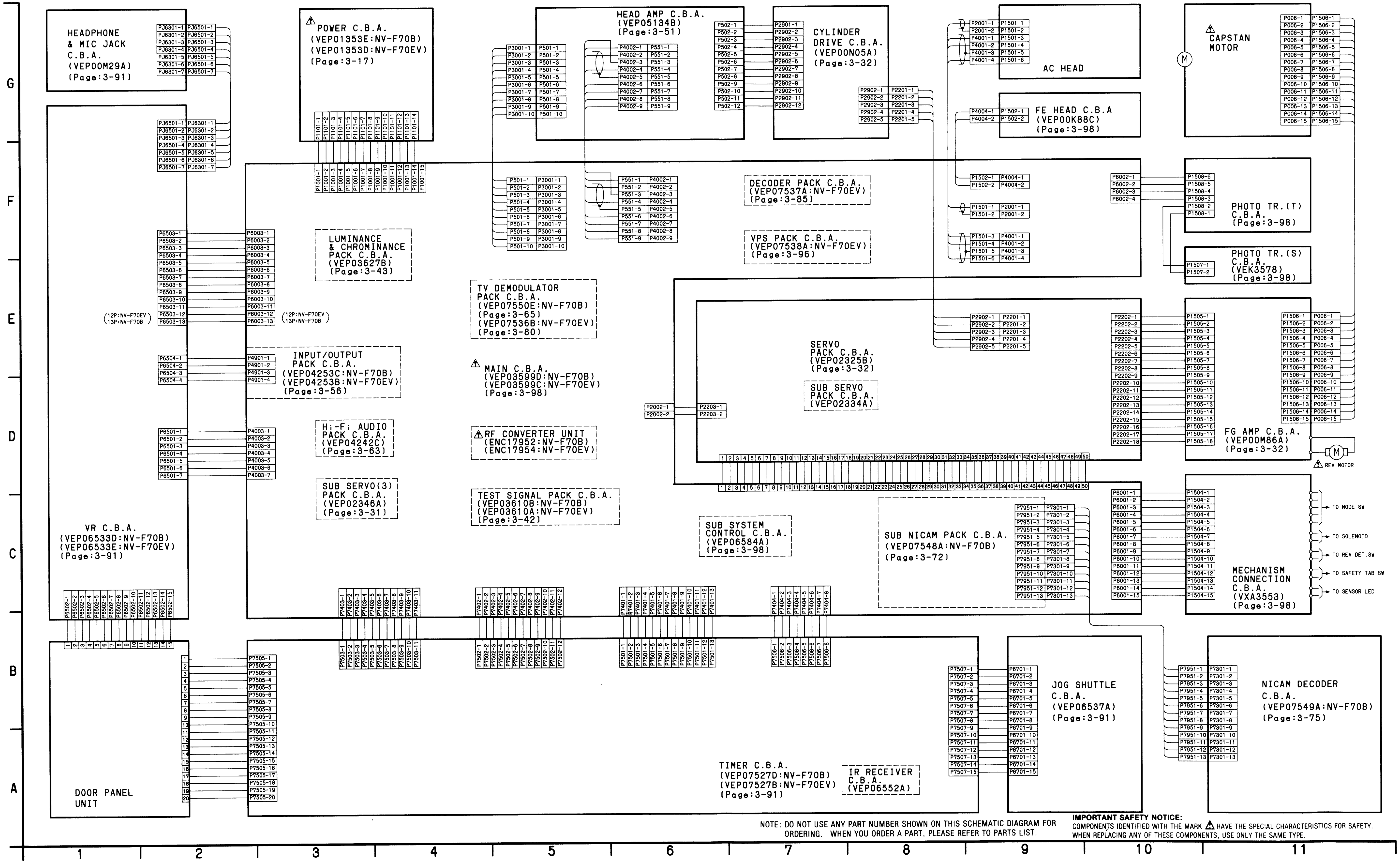
3-41. REMO
(VEP6



3-41. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) C.B.A. (VEP66079D: NV-F70B) (VEP66079B: NV-F70EV)


(COMPONENT SIDE)
(FOIL SIDE)
E
D
C
B
A
1
2
3
4
5
6
7
8
9
(32)
(31)
(30)
(29)
(28)
(27)
(26)
(24)
(23)
(22)
(21)
(20)
X2
FBAL30D001K
SN1
TP
C1
C2
C3
C4
C11
D1
D2
D3
D5
D6
D7
D8
D9
D10
D11
D12
D13
D19
(NV-F70EV)
(NV-F70B)
IC1
IC2
L1
Q1
Q2
Q3
QR2
QR3
R9
R14
R15
R16
VR1
X1
X2
R1
R2
R3
R4
R5
R6
R7
R8
R10
R11
R12
R13
C5
C6
C7
C8
C9
C10
C12
LCD1
INDEX
TAPE REMAIN
MONITOR
TIME SEARCH
SCANNER ON/OFF
WRITE
ERASE
TRANSMIT
SLOW DOWN
SLOW
SLOW UP
REW
PLAY
FF
STILL/PAUSE
STOP
F.ADV
REC
AUDIO
REV/PLAY
CLOCK/COUNT
RESET/INDEX
MEMO/SEARCH
VTR ON/OFF
REF. NO. 6800 SERIES

3-42. INTERCONNECTION SCHEMATIC DIAGRAM

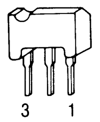

HEADPHONE & MIC JACK C.B.A. (VEP00M29A) (Page:3-91)
⚠ POWER C.B.A. (VEP01353E:NV-F70B) (VEP01353D:NV-F70EV) (Page:3-17)
HEAD AMP C.B.A. (VEP05134B) (Page:3-51)
CYLINDER DRIVE C.B.A. (VEP00N05A) (Page:3-32)
AC HEAD
FE HEAD C.B.A (VEP00K88C) (Page:3-98)
⚠ CAPSTAN MOTOR
M
DECODER PACK C.B.A. (VEP07537A:NV-F70EV) (Page:3-85)
VPS PACK C.B.A. (VEP07538A:NV-F70EV) (Page:3-96)
PHOTO TR.(T) C.B.A. (Page:3-98)
PHOTO TR.(S) C.B.A. (VEK3578) (Page:3-98)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627B) (Page:3-43)
(12P:NV-F70EV) (13P:NV-F70B)
TV DEMODULATOR PACK C.B.A. (VEP07550E:NV-F70B) (Page:3-65) (VEP07536B:NV-F70EV) (Page:3-80)
INPUT/OUTPUT PACK C.B.A. (VEP04253C:NV-F70B) (VEP04253B:NV-F70EV) (Page:3-56)
⚠ MAIN C.B.A. (VEP03599D:NV-F70B) (VEP03599C:NV-F70EV) (Page:3-98)
SERVO PACK C.B.A. (VEP02325B) (Page:3-32)
SUB SERVO PACK C.B.A. (VEP02334A)
FG AMP C.B.A. (VEP00M86A) (Page:3-32)
⚠ REV MOTOR
Hi-Fi AUDIO PACK C.B.A. (VEP04242C) (Page:3-63)
⚠ RF CONVERTER UNIT (ENC17952:NV-F70B) (ENC17954:NV-F70EV)
SUB SERVO(3) PACK C.B.A. (VEP02346A) (Page:3-31)
TEST SIGNAL PACK C.B.A. (VEP03610B:NV-F70B) (VEP03610A:NV-F70EV) (Page:3-42)
SUB SYSTEM CONTROL C.B.A. (VEP06584A) (Page:3-98)
SUB NICAM PACK C.B.A. (VEP07548A:NV-F70B) (Page:3-72)
MECHANISM CONNECTION C.B.A. (VXA3553) (Page:3-98)
TO MODE SW
TO SOLENOID
TO REV DET.SW
TO SAFETY TAB SW
TO SENSOR LED
VR C.B.A. (VEP06533D:NV-F70B) (VEP06533E:NV-F70EV) (Page:3-91)
DOOR PANEL UNIT
TIMER C.B.A. (VEP07527D:NV-F70B) (VEP07527B:NV-F70EV) (Page:3-91)
IR RECEIVER C.B.A. (VEP06552A)
JOG SHUTTLE C.B.A. (VEP06537A) (Page:3-91)
NICAM DECODER C.B.A. (VEP07549A:NV-F70B) (Page:3-75)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

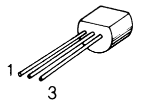
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

3-43. ICs & TRs INFORMATION

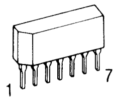
GENERAL CIRCUIT PARTS



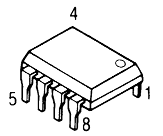
MN1280L
MN1280R
MN1280T



µPC78L05J
µPC78L06J

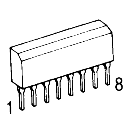


AN3396
AN5215

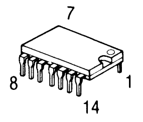


LM358P
LM393P
MSM6965-3RS

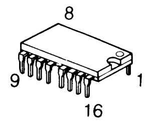
RC4560DD
µPC358G
AN6572



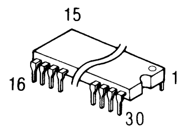
M5201L
µPC1490HA



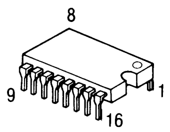
LM339N
MC14011BCP
RZ4066BD
µPD4001BC



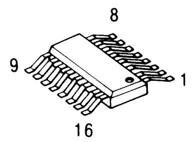
MC14519BCP
MC14052BCP



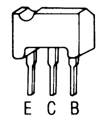
AN3334K
AN3495K
M51366SP
TA8662N



AN5043
MN12261

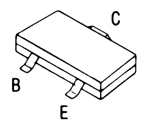


MN4052BS
MN4066BS



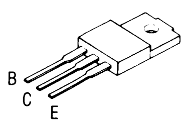
2SA1512
2SC2377
2SC1047
2SD636

2SD638
2SD1330
2SD1992A

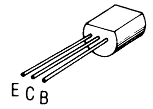


2SB709
2SC2295
2SC2404
2SD1306
2SD2295

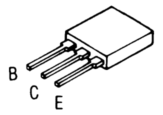
2SB710A
2SD1328
2SD601
2SD601A
2SD602



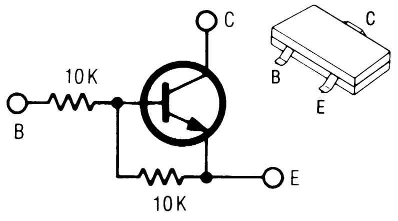
2SC4024LF
2SD1856



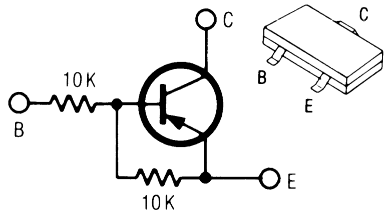
2SD893
2SC1317
2SD592



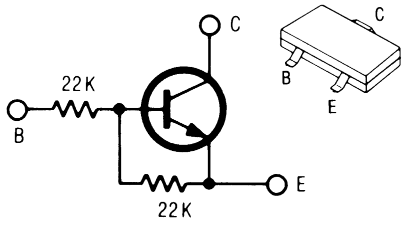
2SA1309
2SC3311


10K
B
C
E
10K
C
B
E

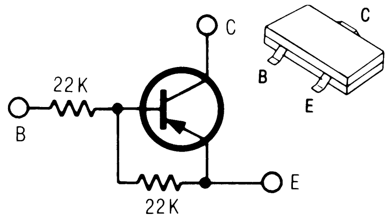
UN2211
DTC114EK
FA1A4M


10K
B
C
E
10K
C
B
E

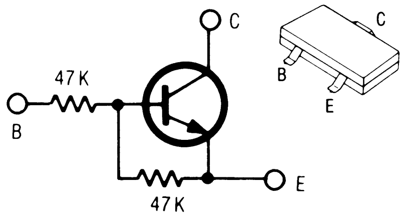
UN2111
DTA114EK
FN1A4M


22K
B
C
E
22K
C
B
E

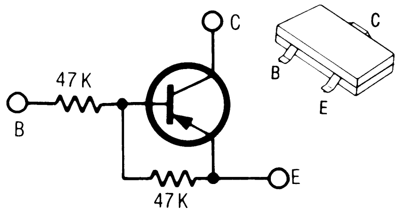
UN2212
DTC124EK
FA1F4M


22K
B
C
E
22K
C
B
E

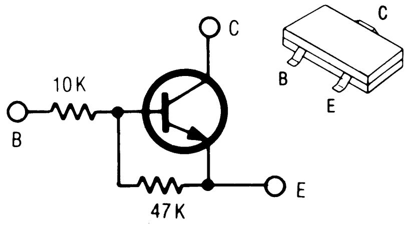
UN2112
DTA124EK


47K
B
C
E
47K
C
B
E

UN2213
DTC144EK
FA1L4M

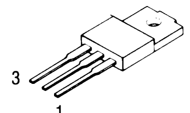

47K
B
C
E
47K
C
B
E

UN2113
DTA144EK
FN1L4M

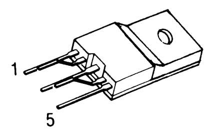

10K
B
C
E
47K
C
B
E

UN2214
DTC114YK
FA1A4P

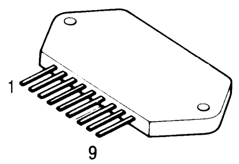
POWER



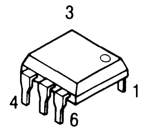
SE013E



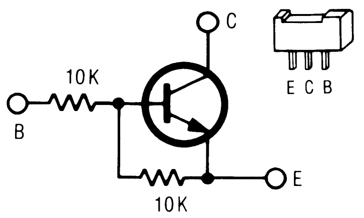
STRD6008



STK5391

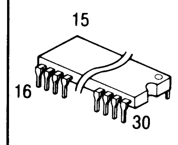


PC111

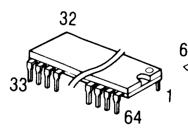

10K
B
C
E
10K
E C B

UN4211

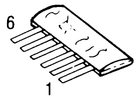
TIMER & VR



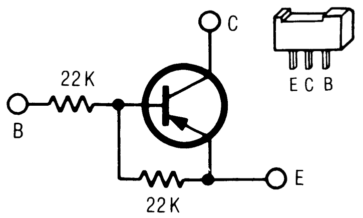
BA6810S



MN187125VHP



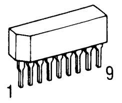
VCR0172


22K
B
C
E
22K
E C B

UN1112
DTA124EA

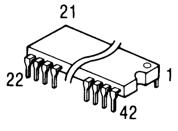
Back Page:
INTERCONNECTION Section

TV DEMODULATOR PACK

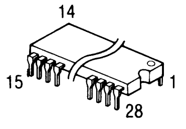


AN5421

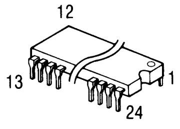
NICAM DECODER (NV-F70B)



TC6011N

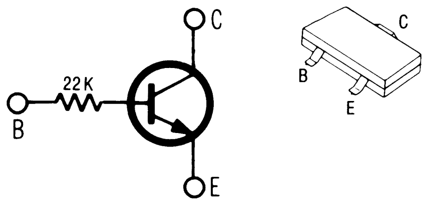


TC5563APL



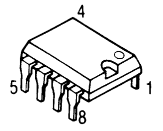
TD6710AN

SUB NICAM PACK (NV-F70B)

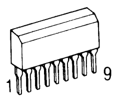


UN2217

INPUT/OUTPUT

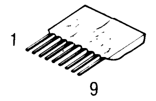


AN6558

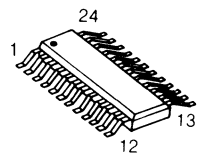


TA7348P

HEAD AMP

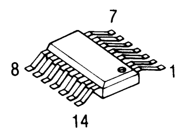


VCR0271

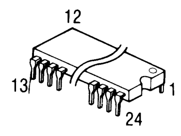


BA7740FS

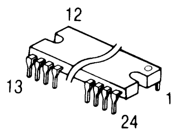
SERVO PACK



MN4013BS



AN3726K



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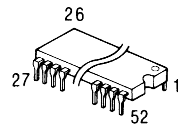
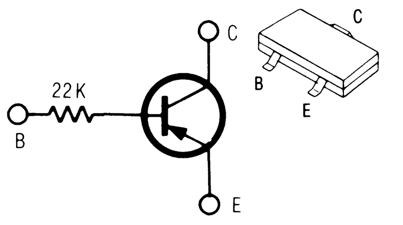
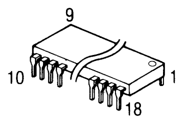


MN6742AVCWK5

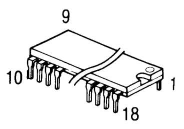


UN2117
DTA124TK
FN1F4Z

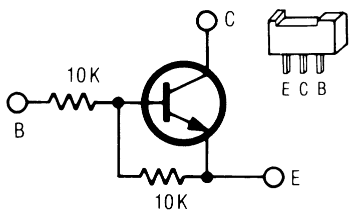


AN3815

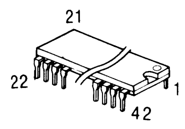
VPS PACK Section



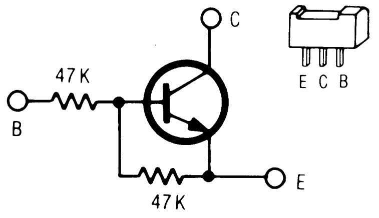
SAA4700


10K
B
C
E
10K
E C B

UN1211
DTC114EA

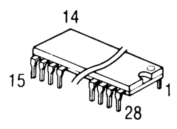


MN158413VHW


47K
B
C
E
47K
E C B

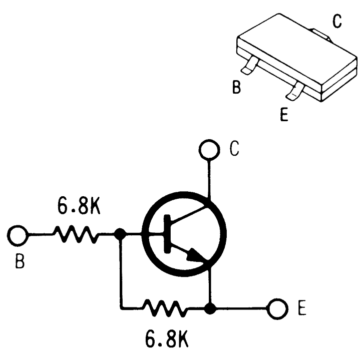
UN1213
DTC144EA

DECODER PACK (NV-F70EV)



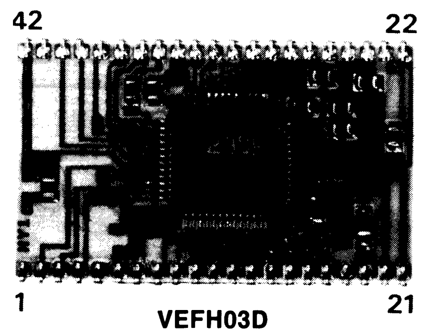
TDA3803A

LUMINANCE & CHROMINANCE Section

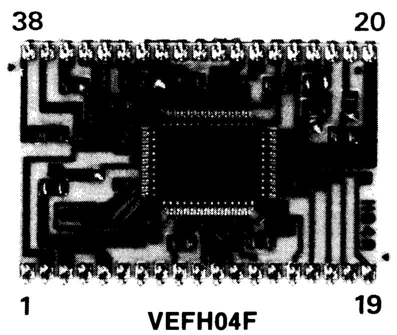

C
B
E
6.8K
B
C
E
6.8K

DTC363EK

LUMINANCE & CHROMINANCE PACK

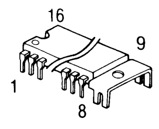


VEFH03D

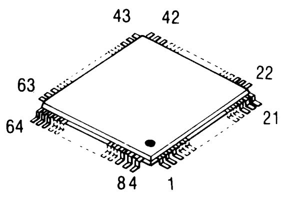


VEFH04F

SYSTEM CONTROL Section

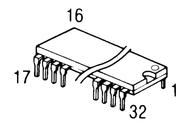


AN6609

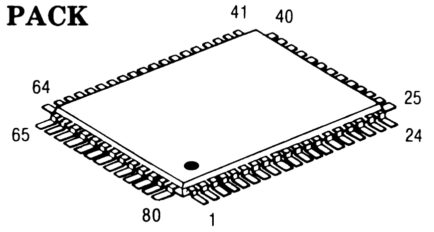

43
42
63
22
64
21
84
1

MN188166VHI

AUDIO & Hi-Fi AUDIO PACK

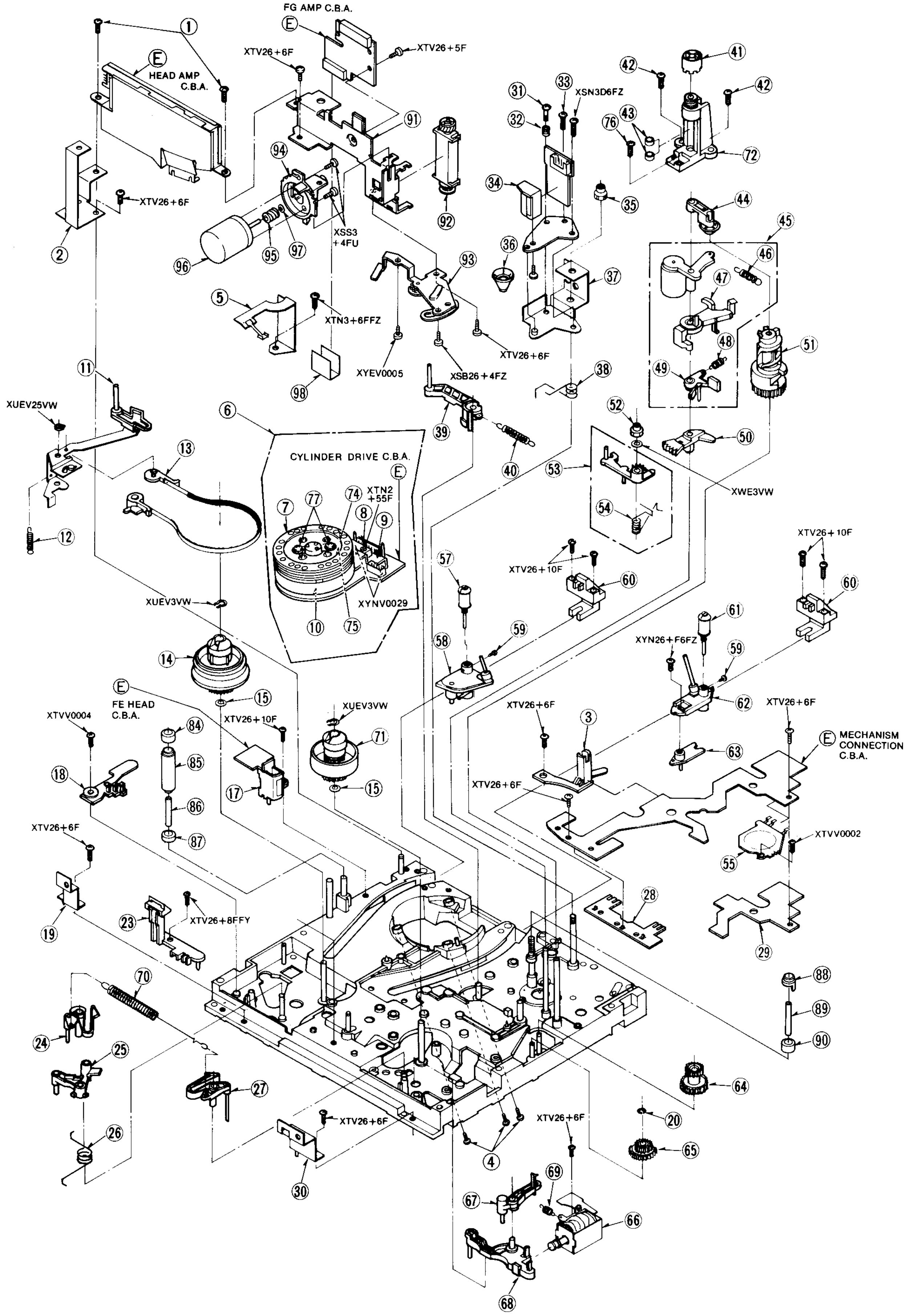


BA7766AS


41
40
64
25
65
24
80
1

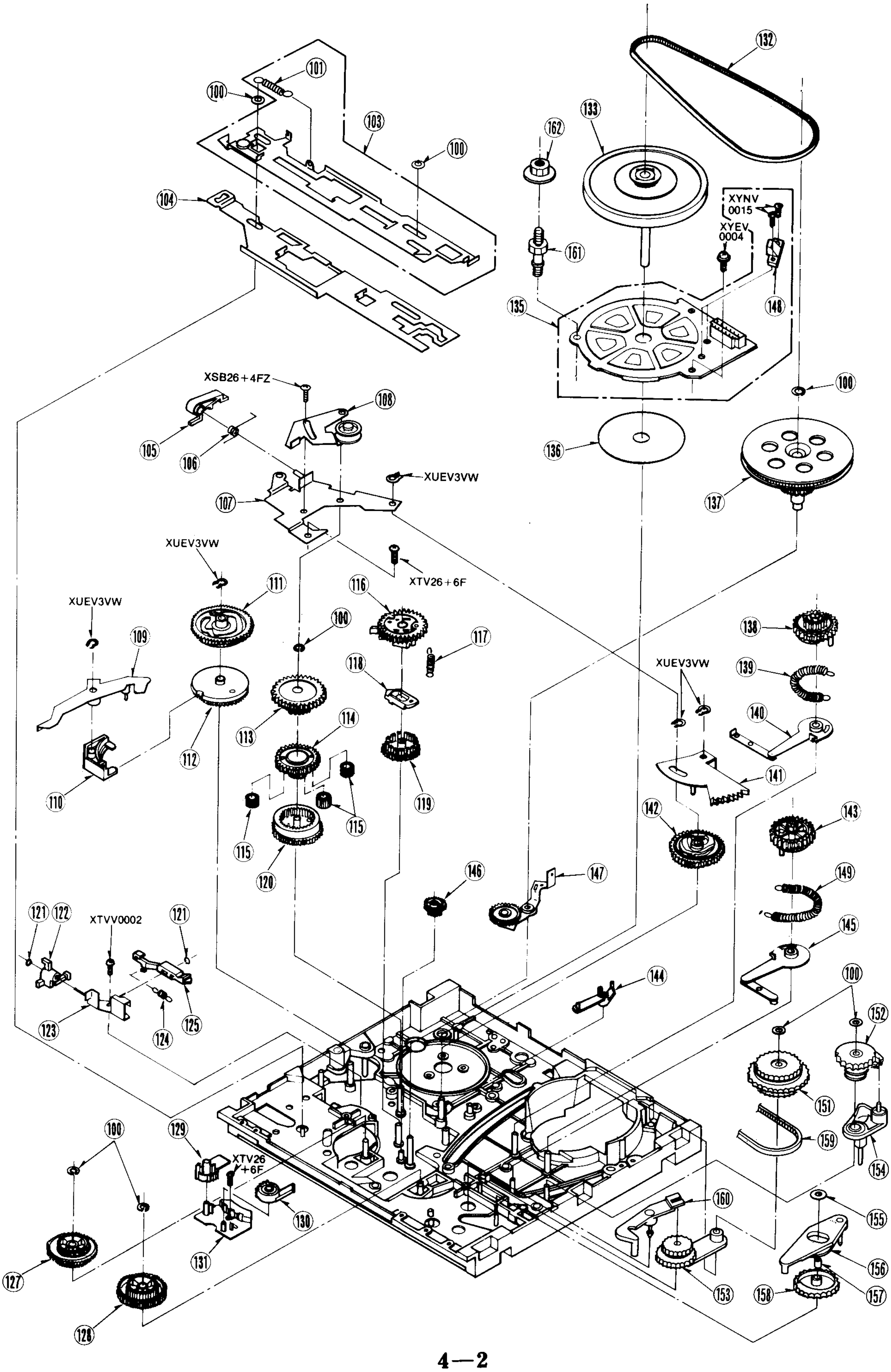
BA7700K1

SECTION 4
EXPLODED VIEWS & PARTS LIST
4-1. EXPLODED VIEW ❶ CHASSIS PARTS SECTION (1)

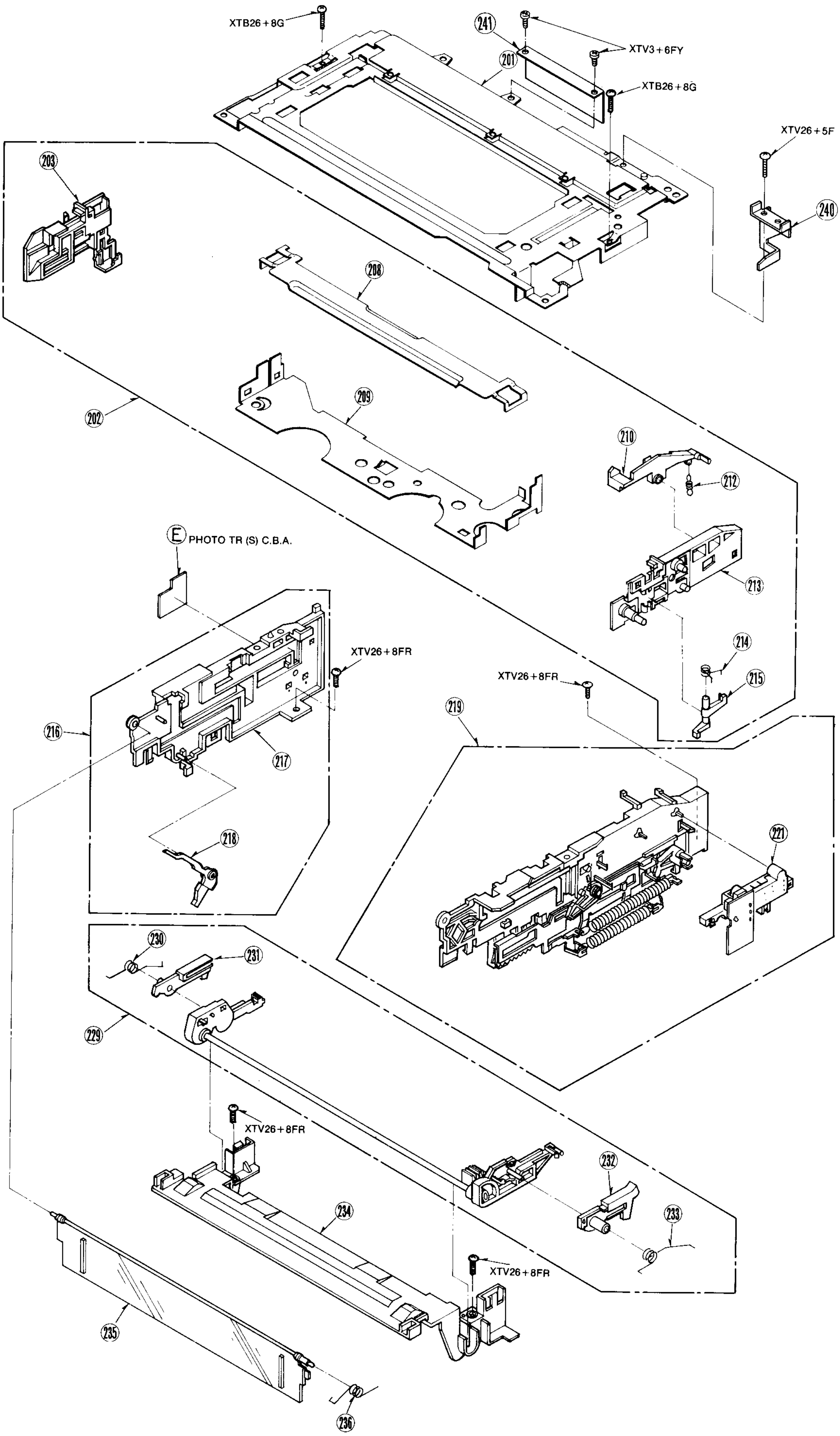


FG AMP C.B.A.
E
XTV26+6F
XTV26+5F
①
E
HEAD AMP C.B.A.
91
94
92
31
33
XSN3D6FZ
32
34
35
41
42
42
43
76
72
44
45
46
47
48
49
50
51
XTV26+6F
②
96
95
97
XSS3 +4FU
93
36
37
⑤
XTN3+6FFZ
98
XYEV0005
XSB26+4FZ
XTV26+6F
38
39
40
⑪
XUEV25VW
⑫
⑬
⑥
CYLINDER DRIVE C.B.A.
E
⑦
77
74
XTN2 +55F
⑧
⑨
⑩
75
XYNV0029
52
XWE3VW
53
54
XUEV3VW
⑭
⑮
57
XTV26+10F
60
XTV26+10F
60
58
59
61
XYN26+F6FZ
59
62
63
③
XTV26+6F
XTV26+6F
XTV26+6F
E
MECHANISM CONNECTION C.B.A.
XTVV0002
55
E
FE HEAD C.B.A.
XTVV0004
XTV26+10F
⑰
XUEV3VW
71
⑮
⑱
84
85
86
87
XTV26+6F
⑲
23
XTV26+8FFY
28
29
70
24
25
27
26
30
XTV26+6F
④
XTV26+6F
88
89
90
64
⑳
65
67
69
66
68

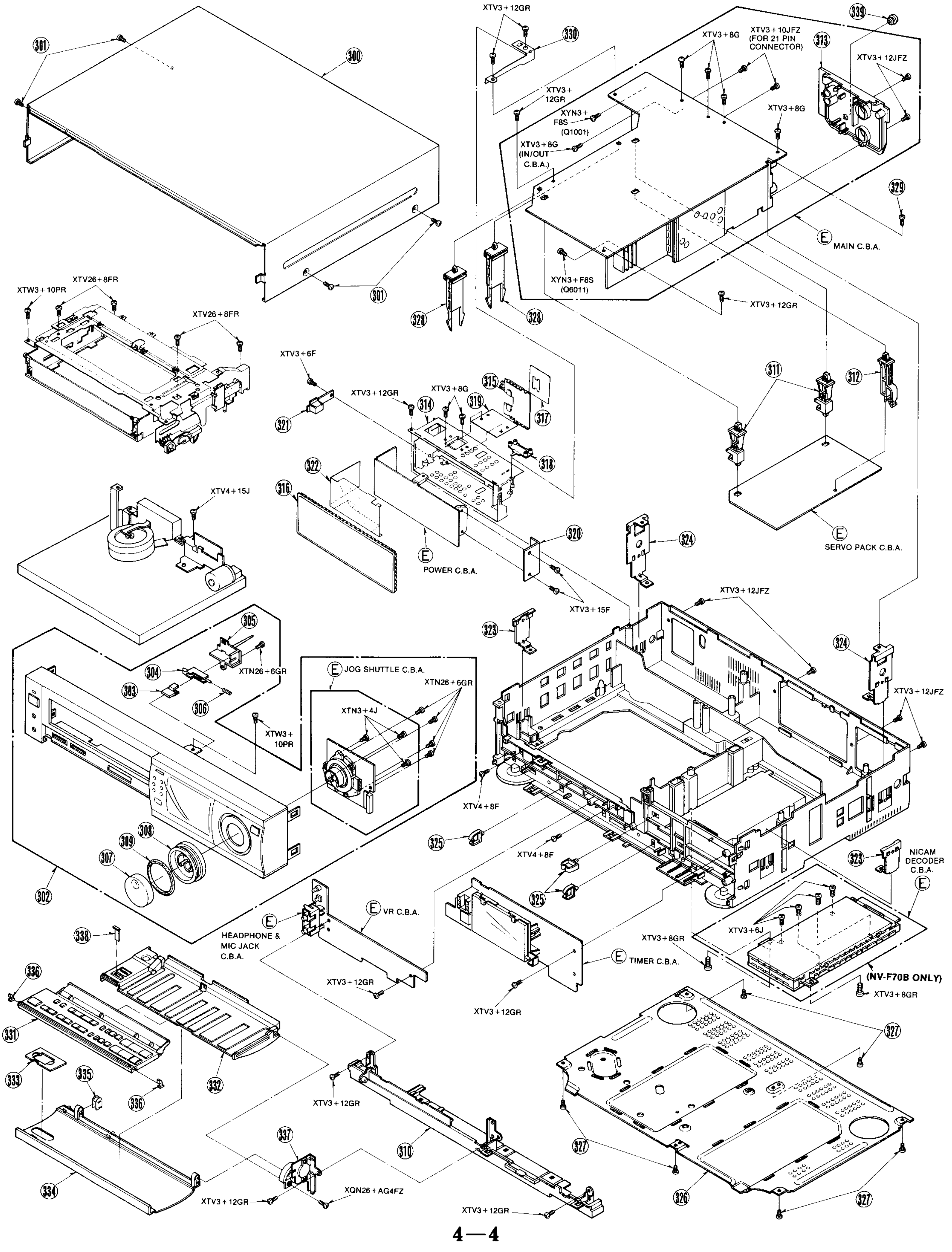
❷ CHASSIS PARTS SECTION (2)


101
100
103
100
104
132
133
162
161
XYNV 0015
XYEV 0004
148
135
100
136
137
XSB26+4FZ
108
105
106
XUEV3VW
107
XUEV3VW
XTV26+6F
111
116
XUEV3VW
109
100
117
118
112
113
114
119
110
115
115
120
138
139
XUEV3VW
140
141
142
143
146
147
149
145
121
122
XTVV0002
121
123
124
125
144
100
152
151
159
154
155
156
157
158
160
153
100
129
XTV26 +6F
130
131
127
128

❸ CASSETTE UP MECHANISM SECTION

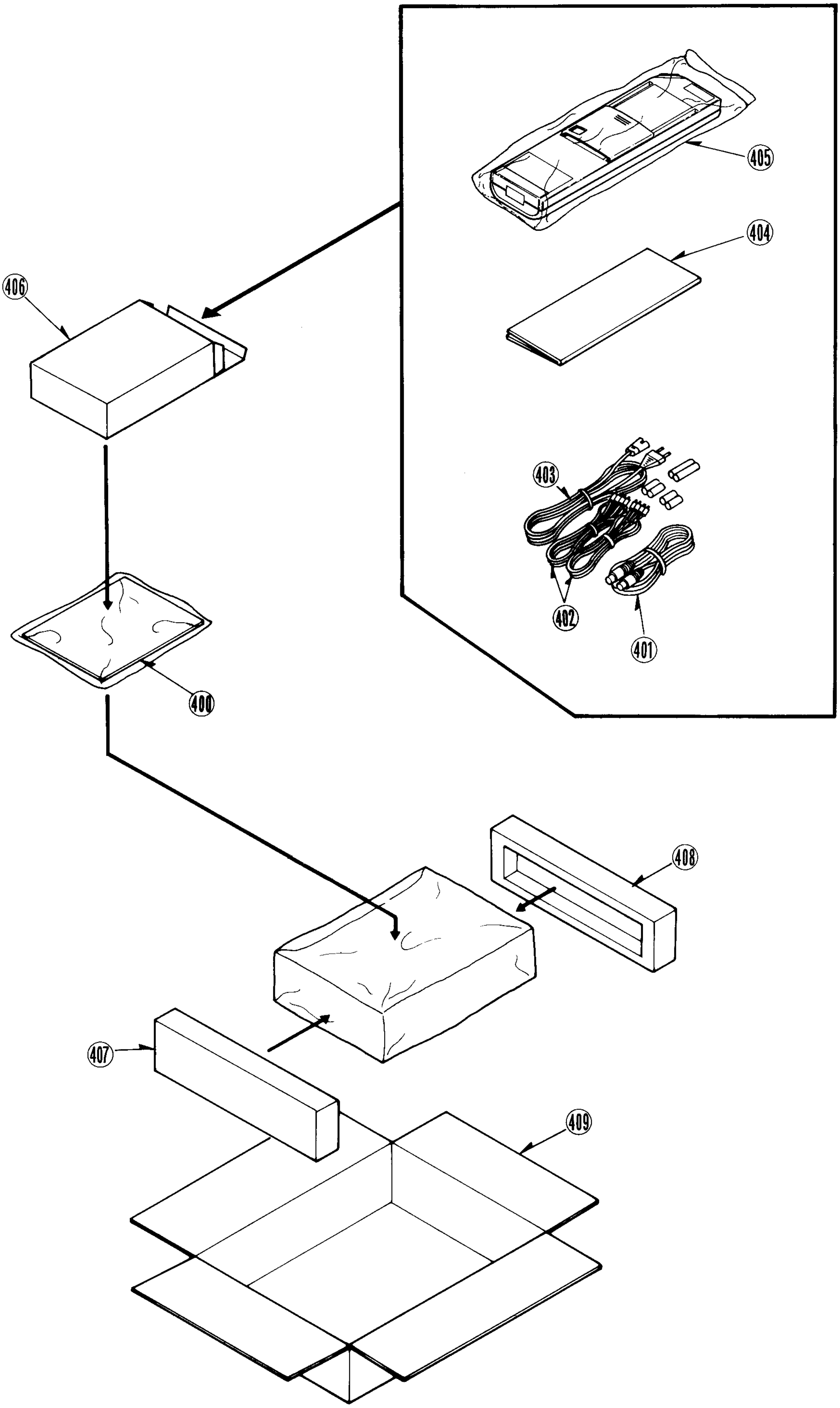

XTB26+8G
241
XTV3+6FY
201
XTB26+8G
XTV26+5F
240
203
208
209
202
210
212
213
214
215
E PHOTO TR (S) C.B.A.
XTV26+8FR
XTV26+8FR
219
216
217
218
221
230
231
229
XTV26+8FR
232
234
233
XTV26+8FR
235
236

❹ CASING PARTS SECTION

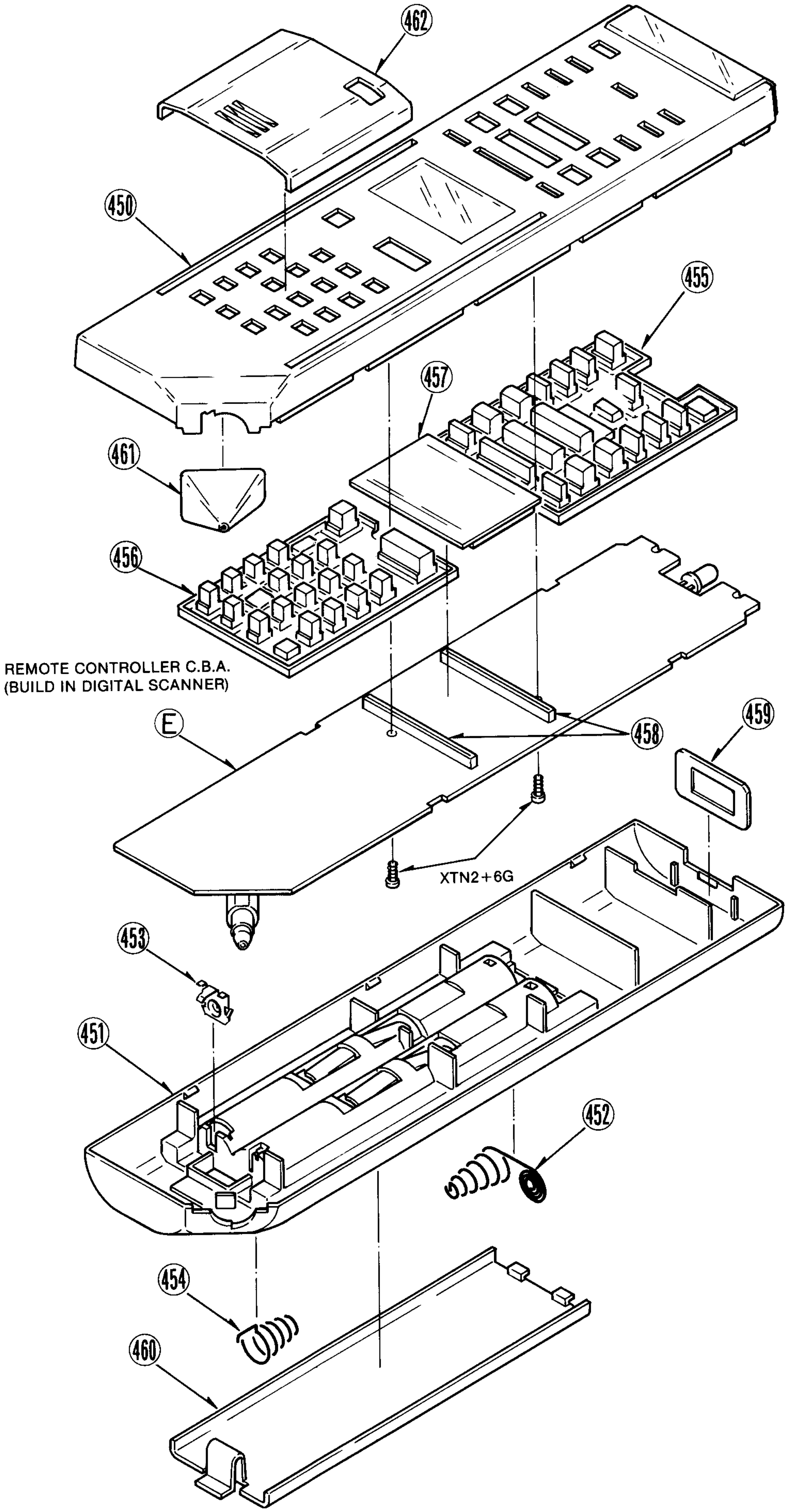


XTV3+12GR
330
339
XTV3+8G
XTV3+10JFZ (FOR 21 PIN CONNECTOR)
313
XTV3+12JFZ
301
300
XTV3+12GR
XYN3+F8S (Q1001)
XTV3+8G
XTV3+8G (IN/OUT C.B.A.)
329
E MAIN C.B.A.
XYN3+F8S (Q6011)
XTV3+12GR
301
328
328
XTV26+8FR
XTW3+10PR
XTV26+8FR
XTV3+6F
XTV3+12GR
XTV3+8G
315
311
312
314
319
317
321
318
322
316
E POWER C.B.A.
320
324
E SERVO PACK C.B.A.
XTV4+15J
XTV3+15F
XTV3+12JFZ
305
323
324
304
XTN26+6GR
E JOG SHUTTLE C.B.A.
XTN26+6GR
303
306
XTN3+4J
XTV3+12JFZ
XTW3+10PR
XTV4+8F
325
309
308
307
XTV4+8F
323
NICAM DECODER C.B.A.
E
302
325
E VR C.B.A.
E HEADPHONE & MIC JACK C.B.A.
XTV3+6J
XTV3+8GR
E TIMER C.B.A.
338
336
XTV3+12GR
(NV-F70B ONLY)
XTV3+8GR
XTV3+12GR
331
327
333
335
332
336
XTV3+12GR
337
310
327
326
327
334
XQN26+AG4FZ
XTV3+12GR
XTV3+12GR

❺ PACKING PARTS SECTION


405
404
406
403
402
401
400
408
407
409

❻ REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) UNIT


462
450
455
457
461
456
REMOTE CONTROLLER C.B.A.
(BUILD IN DIGITAL SCANNER)
E
458
459
XTN2+6G
453
451
452
454
460

4-2.MECHANICAL REPLACEMENT PARTS LIST (NV-F70B)

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0418	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VXA3520	LED HOLDER UNIT	1	
4(1)		VHD0342	CYLINDER SCREW	3	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0684	CYLINDER UNIT	1	<!>
7(1)		VEH0433	UPPER CYLINDER UNIT	1	
8(1)		VRH0015	HEATER	1	
9(1)		VMA6884	MAIN HOLDER	1	
10(1)		VSC2188	CYLINDER C.B.A.SHIELD PLATE	1	
11(1)		VXL1855	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0267	TENSION BAND UNIT	1	
14(1)		VXR0179	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
17(1)		VBS0038	FE HEAD	1	
18(1)		VMD1316	TENSION SPRING HOOK	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	1	
23(1)		VES0486	SAFETY SW	1	
24(1)		VXZ0259	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0274	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0262	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VMA7829	REINFORCEMENT PLATE (F)	1	
29(1)		VMA7830	REINFORCEMENT PLATE (R)	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0110	ADJUST NUT	1	
37(1)		VMA7831	HEAD BASE	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1910	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1858	PRESSURE ROLLER UNIT	1	
46(1)		VMB1941	PIN PRESSURE SPRING	1	
47(1)		VML2232	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP1094	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VSJ0073	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB2012	MAIN BRAKE SPRING	1	
71(1)		VXR0176	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
74(1)		VSC1843	HEAT SINK PLATE	1	
75(1)		VHD0329	HEAT SINK SCREW	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0425	UPPER CYLINDER SCREW	2	
84(1)		VMX1088	SUPPLY UPPER LIMITER	1	
85(1)		VDP1072	SUPPLY ROLLER	1	
86(1)		VMX0876	P1 COLLAR	1	
87(1)		VMX1533	SUPPLY ROLLER LIMITER	1	
88(1)		VMX1544	P4 UPPER LIMITER	1	
89(1)		VMX1568	P4 SLEEVE	1	
90(1)		VMX1534	P4 LOWER LIMITER	1	
91(1)		VMA7832	MOTOR MOUNT PLATE	1	
92(1)		VXA3517	WORM WHEEL BEARING UNIT	1	
93(1)		VXA3701	TENSION PULLEY BASE (A)	1	
			UNIT		
94(1)		VXA3564	REEL MOTOR BRACKET UNIT	1	
95(1)		VXP1047	WORM GEAR UNIT	1	
96(1)		VEM0320	REV MOTOR	1	
97(1)		VMX1535	WORM WASHER	1	
98(1)		VWJ15TW06OM	FLEXIBLE CADE	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1883	SUB LEVER SPRING	1	
103(2)		VXA3510	SUB LEVER UNIT	1	
104(2)		VMM0204	MAIN LEVER	1	
105(2)		VXL1873	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA3512	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA3516	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0574	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0547	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1031	TAKE UP REEL GEAR UNIT	1	
128(2)		VXP0981	SUPPLY REEL GEAR UNIT	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
135(2)		VEK4097	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP1050	CENTRE PULLEY UNIT	1	
138(2)		VDG0564	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3515	SECTOR GEAR UNIT	1	
142(2)		VDG0516	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML2266	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0546	INTERMEDIATE GEAR	1	
147(2)		VXL1861	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
151(2)		VXP1029	REVIEW CLUTCH UNIT	1	
152(2)		VXP1030	TENSION RELEASE CLUTCH UNIT	1	
153(2)		VXL1851	REVIEW ARM UNIT	1	
154(2)		VML2197	TENSION RELEASE LEVER	1	
155(2)		VMX1536	CUT WASHER	1	
156(2)		VML2233	SUB CAM FOLLOWER	1	
157(2)		VMX1495	RUBBER STOPPER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
158(2)		VDG0517	SUB LEVER CAM	1	
159(2)		VDV0199	REVIEW CLUTCH TIMING BELT	1	
160(2)		VML2200	REVIEW CONTROL LEVER	1	
161(2)		VHD0431	STATOR SPACER SCREW	1	
162(2)		VHN0102	STATOR NUT	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA3707	CASSETTE HOLDER UNIT	1	
203(3)		VXA3499	HOLDER GUIDE (L) UNIT	1	
208(3)		VXA3494	HOLDER ANGLE UNIT	1	
209(3)		VMA7995	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD1352	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3495	SIDE PLATE (R) UNIT	1	
221(3)		VXA3498	SLIDE SW UNIT	1	
229(3)		VXP0987	MAIN SHAFT UNIT	1	
230(3)		VMB1836	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1837	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF1212	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
241(3)		VMA7999	CASSETTE STOPPER ANGLE	1	
300(4)		VYP2676	TOP PANEL UNIT	1	
301(4)		VHD0165	TOP PANEL SCREW	4	
302(4)		VYP2558	FRONT PANEL UNIT	1	
303(4)		VGU4497	DOOR OPEN BUTTON	1	
304(4)		VGU4498	DOOR LOCK LEVER	1	
305(4)		VGQ1675	LOCK LEVER HOLDER	1	
306(4)		VMB1963	LOCK LEVER SPRING	1	
307(4)		VXU0928	JOG KNOB UNIT	1	
308(4)		VGU4785	SHUTTLE KNOB	1	
309(4)		VGQ1655	SHUTTLE LING	1	
310(4)		VYF1332	SUPPORT PANEL UNIT	1	
311(4)		VKC0329	SERVO HINGE CLIP	2	
312(4)		VJF0553	SERVO SUPPORT ANGLE	1	
313(4)		VJH0511	RF & ANT BOARD	1	
314(4)		VXA3571	POWER SHIELD PLATE (MAIN)	1	
315(4)		VSC2397	POWER SHIELD PLATE (TOP)	1	
316(4)		VSC2237	POWER SHIELD PLATE (BOTTOM)	1	
317(4)		VGH1476	POWER NAME PLATE	1	
318(4)		VGQ1377	TR. HOLDER	1	
319(4)		VMZ1224	INSULATION SHEET	1	
320(4)		VSC2238	HEAT SINK	1	
321(4)		VMP1734	SCREW STOPER ANGLE	1	
322(4)		VMZ1140	BARRIER	1	
323(4)		VMP0442	TOP HOLDER ANGLE (F)	2	
324(4)		VMP1855	TOP HOLDER ANGLE (R)	2	
325(4)		VJF0442	WIRE SADDLE	3	
326(4)		VKU0302	BOTTOM PLATE	1	
327(4)		VHD0059	BOTTOM PLATE SCREW	6	
328(4)		VKC0354	MAIN HING CLIP	2	
329(4)		VHD0418	MAIN SCREW	1	
330(4)		VMC0445	EARTH PLATE	1	
331(4)		VES0501	KEY BOARD PANEL UNIT	1	
332(4)		VYP2556	DOOR PANEL UNIT	1	
333(4)		VGP2201	DOOR SUB PANEL	1	
334(4)		VYC0301	DOOR ALUMINUM UNIT	1	
335(4)		VMC0443	EARTH SPRING	1	
336(4)		VMT0260	CUSHION RUBBER	2	
337(4)		VXU0878	DOOR GEAR UNIT	1	
338(4)		VGL0379	PANEL LIGHT	1	
339(4)		VMG0326	RUBBER CAP	1	
400(5)		VQT2959	OPERATING INSTRUCTIONS	1	<!>
			(ENGLISH)		
401(5)		VJA0376	DIN RF CABLE	1	
402(5)		VJA0231	AUDIO CABLE	2	
403(5)		VJA0445	AC CORD	1	<!>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
404(5)		VQC1330	PROGRAMME SHEET	1	
405(5)		VEQ0913	REMOTE CONTROLLER UNIT	1	BUILD IN DIGITAL
					SCANNER
406(5)		VPK0834	ACCESSORIES PACKING	1	
407(5)		VPN2348	CUSHION (L)	1	
408(5)		VPN2349	CUSHION (R)	1	
409(5)		VPG4546	PACKING	1	
450(6)		VYK2418	TOP COVER UNIT	1	
451(6)		VKM1673	BOTTOM COVER	1	
452(6)		VJR0497	ELECTRODE (COMMON)	1	
453(6)		VJR0507	ELECTRODE (+)	1	
454(6)		VJR0412	ELECTRODE (-)	1	
455(6)		VSP0389	RUBBER CONTACT (A)	1	
456(6)		VSP0390	RUBBER CONTACT (B)	1	
457(6)		VSL0156	LCD	1	
458(6)		VMT0257	CONDUCTIVE RUBBER	2	
459(6)		VKW0878	IR WINDOW	1	
460(6)		VKF1202	BATTERY COVER	1	
461(6)		VGQ1640	SENSOR CAP	1	
462(6)		VKF1201	SLIDE DOOR	1	
			SERVICING FIXTURES & TOOLS		
		VFJ8125H3F	VHS ALIGNMENT TAPE	1	(PAL)
		VFK0335	RETAINING RING REMOVER	1	(3mm/4mm)
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHIT GAUGE	1	
		VFK0328	H-POSITION ADJUSTMENT	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHIT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST (NV-F70B)

Note:1.* Be sure to make your orders of replacement parts according to this list.

2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICROFARADS(uf),P=uuF.

4.The P.C.Board units marked width'█'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03599D	MAIN C.B.A.	1	(NLA)<!>
					INCLUDING THE
					FOLLOWING C.B.A.s
					VEP03627B,VEP04242C,
					VEP04253C,VEP03610B,
					VEP07550E,VPP07548A,
					VEP06584A,VEP02346A.
		VEP03627B	LUMINANCE & CHROMINANCE	1	(NLA)
			PACK C.B.A.		PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP04242C	Hi-Fi AUDIO PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP04253C	INPUT/OUTPUT PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP03610B	TEST SIGNAL PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP07550E	TV DEMODULATOR PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP07548A	SUB NICAM PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP06584A	SUB SYSTEMCONTROL C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP02346A	SUB SERVO PACK (3) C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP02325B	SERVO PACK C.B.A.	1	(NLA)
					INCLUDING THE
					VEP02334A
		VEP02334A	SUB SERVO PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN SERVO PACK
					C.B.A.
		VEP01353E	POWER C.B.A.	1	(NLA)<!>
		VEP05134B	HEAD AMP C.B.A.	1	(NLA)
		VEP06533D	VR C.B.A.	1	(NLA)
					INCLUDING THE
					VEP00M29A
		VEP00M29A	HEAD PHONE & MIC JACK	1	(NLA)
			C.B.A.		PARTS LIST IS MENTIO-
					NED IN VR C.B.A.
		VEP07549A	NICAM DECODER C.B.A.	1	(NLA)
		VEP06537A	JOG/SHUTTLE C.B.A.	1	(NLA)
		VEP07527D	TIMER C.B.A.	1	(NLA)
					INCLUDING THE
					VEP06552A
		VEP06552A	IR RECEIVER C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN TIMER C.B.A.
		VEP00K88C	EF HEAD C.B.A.	1	(NLA)
		VEP00M86A	FG AMP C.B.A.	1	(NLA)
		VEP00N05A	CYLINDEWR DRIVE C.B.A.	1	(NLA)
		VXA3553	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEK3578	PHOTO TR (S) C.B.A.	1	(NLA)
		-------	PHOTO TR (T) C.B.A.	1	(NLA)
		VEP66079D	REMOTE CONTROLLER C.B.A.	1	(NLA)
F1101		XBA2C16TB0	FUSE 250V 1.6A	1	<!>
F1102		XBA2C12TB0	FUSE 250V 1.2A	1	<!>
		VWJ0357	FLEXIBLE CABLE 15P	1	
		VWJ0358	FLEXIBLE CABLE 18P	1	
	█	VEP03599D	MAIN C.B.A.		
			CAPACITORS		
C251		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C252		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C253		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C301		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C303		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C304		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C305		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C728		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C732		ECQV1H224B	M.CAPACITOR 50V 0.22U	1	
C734		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C735		ECUM1H070DCN	CHIP 50V 7P	1	
C736		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C737		ECUM1H151JCN	CHIP 50V 150P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUM1H030CCN	CHIP 50V 3P	1	
C743		ECUM1H270JSN	CHIP 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUX1H680JPN	CHIP 50V 68P	1	
C746		ECUM1H150JCN	CHIP 50V 15P	1	
C748		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C749		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C760		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C781		ECUM1H390JCN	CHIP 50V 39P	1	
C782		ECUM1H060DCN	CHIP 50V 6P	1	
C801,02		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C803		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C804,05		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C806		ECUM1H471KBN	CHIP 50V 470P	1	
C807,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C810		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C811		ECUM1H180JCN	CHIP 50V 18P	1	
C812		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C813		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C814		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C815		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C816		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C817		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	1	
C818		ECUM1H471KBN	CHIP 50V 470P	1	
C819		ECUM1H820JCN	CHIP 50V 82P	1	
C820		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C821		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C823		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C824		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C825		ECUM1H101JCN	CHIP 50V 100P	1	
C826		ECEA1AU221	E.CAPACITOR 10V 220U	1	
C827		ECUM1H050DCN	CHIP 50V 5P	1	
C828		ECUM1H102KBN	CHIP 50V 1000P	1	
C829		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C831,32		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C1001		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C1003		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C1004		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1005		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C1006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C1007,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C1009		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C1011		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C1012		ECEA1HU470	E.CAPACITOR 50V 47U	1	
C1013		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C3001		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3004		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3005		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C3006		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3007		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3008		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3009		ECUM1H560JCN	CHIP 50V 56P	1	
C3010		ECUM1H151JCN	CHIP 50V 150P	1	
C3012		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C3013		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3014		ECUM1H220JCN	CHIP 50V 22P	1	
C3016		ECUM1H220JCN	CHIP 50V 22P	1	
C3017		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3018		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C3019		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3020		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3021		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3022		ECUM1H220JCN	CHIP 50V 22P	1	
C3023		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3024		ECUM1H680JCN	CHIP 50V 68P	1	
C3025		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3026		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3028		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3029		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3030		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3031		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3032		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3033		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3034		ECUM1C224ZFN	CHIP 16V 0.22U	1	
C3040		ECUM1H180JCN	CHIP 50V 18P	1	
C3047		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3048		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3049		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3050		ECUM1H180JCN	CHIP 50V 18P	1	
C3051		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3054		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C3635-37		ECEA1CK100	E.CAPACITOR 16V 10U	3	
C3638,39		ECUM1H332KBN	CHIP 50V 3300P	2	
C3901-03		ECEA1CK220	E.CAPACITOR 16V 22U	3	
C3904		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3905		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3906		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3908		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4001		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECUM1H102KBN	CHIP 50V 1000P	1	
C4004		ECQP1222JZ	P.CAPACITOR 0.0022U	1	
C4005		ECCD2H121J	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4011		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C4014		ECUM1H182KBN	CHIP 50V 1800P	1	
C4015		ECEA16M10R	ELECTROLYTIC 16V 10U	1	
C4016		ECUM1H102KBN	CHIP 50V 1000P	1	
C4017		ECEA10M47	E.CAPACITOR 10V 47U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	CHIP 50V 1000P	1	
C4021		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4022		ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4023		ECUM1H221JN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JCN	CHIP 50V 100P	2	
C4026		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4027		ECUM1H102JN	CHIP 50V 1000P	1	
C4029		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C4101		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4103		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4104		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4106		ECEA1APK470	E.CAPACITOR 10V 47U	1	
C4107		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4108		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C4110,11		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C4112		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C4114,15		ECUX1H473ZFN	CHIP 50V 0.047U	2	
C4116,17		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C4118		ECUM1H104ZFN	CHIP 50V 0.1U	1	
C4119		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4120		ECUM1H103KBN	CHIP 50V 0.01U	1	
C4125		ECUM1H102KBN	CHIP 50V 1000P	1	
C4126		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4501		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4502		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4503		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4504		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4505		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4506		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4507		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4508		VCEA1EAE4R7J	E.CAPACITOR 25V 4.7U	1	
C4509		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4510		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4511		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4512		ECUM1H102JCN	CHIP 50V 1000P	1	
C4513,14		ECUM1H102JN	CHIP 50V 1000P	2	
C4515		ECEA1HBZ3R3	E.CAPACITOR 50V 3.3U	1	
C4516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4517		ECEA1APZ101	E.CAPACITOR 10V 100U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4518,19		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C4520		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4522		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4525		ECEA1CPZ220	E.CAPACITOR 16V 22U	1	
C4526		VCEA1CAH101	E.CAPACITOR 16V 100U	1	
C4527		VCEA1AAE101	E.CAPACITOR 10V 100U	1	
C4528		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C4529		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4530		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4531		ECEA1EK3R3	E.CAPACITOR 25V 3.3U	1	
C4532		ECEA1CPZ471	E.CAPACITOR 16V 470U	1	
C4533		ECEA1CPZ221	E.CAPACITOR 16V 220U	1	
C4534		VCEA1AAH101	E.CAPACITOR 10V 100U	1	
C4535		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4536		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C4537		ECUM1H331JCN	CHIP 50V 330P	1	
C4538		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4539		ECQB1H223JZ	P.CAPACITOR 50V 0.022U	1	
C4540-42		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C4551		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4552		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4553		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4554		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4555		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4556		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4557		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4558		VCEA1EAE4R7J	E.CAPACITOR 25V 4.7U	1	
C4559		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4560		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4561		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4562		ECUM1H102JCN	CHIP 50V 1000P	1	
C4563,64		ECUM1H102JN	CHIP 50V 1000P	2	
C4565		ECEA1HBZ3R3	E.CAPACITOR 50V 3.3U	1	
C4566		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4567		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4568,69		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C4570		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4572		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4574,75		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C4901,02		ECUM1H101KBN	C.CAPACITOR CH 50V 100P	2	
C4903,04		ECUM1H222KBN	CHIP 50V 2200P	2	
C4909,10		ECUM1H101KN	CHIP 50V 100P	2	
C4915		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C4916		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4917,18		VCEA1AAC101	E.CAPACITOR 10V 100U	2	
C4919		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C4920		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C4921		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4922		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C4923		ECQB1H222JH	P.CAPACITOR 50V 2200P	1	
C4924,25		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	2	
C4926		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C4927		ECEA1CPZ101	E.CAPACITOR 16V 100U	1	
C4928		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C4929		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C6001		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6002		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6003		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6004		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C6005		ECUM1H151KBN	C.CAPACITOR 50V 150P	1	
C6006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C6007		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6008		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C6010,11		ECUM1H102KBN	CHIP 50V 1000P	2	
C6012		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C6013,14		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C6015		ECUM1H102ZFN	C.CAPACITOR 50V 1000P	1	
C6016		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6017		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6018,19		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C6020-23		ECUM1H171KBN	C.CAPACITOR CH 50V 170P	4	
C6024-28		ECUM1H221KBN	C.CAPACITOR CH 50V 220P	5	
C6029		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C6030		ECEA1CU222	E.CAPACITOR 16V 2200U	1	
C6033		ECEA1CK330U	E.CAPACITOR 16V 33U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6034		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C6037		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C6039		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6041		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6042		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6043		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H392JH	P.CAPACITOR 50V 3900P	1	
C7654		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7655,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7657		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7658		ECQP1H562JZ	P.CAPACITOR 50V 5600P	1	
C7659		ECQB1H272JH	P.CAPACITOR 50V 2700P	1	
C7661		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7662		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C7663		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C7664		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C7665,66		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7667		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7675		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C7676,77		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7678		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7679		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C7951		ECUM1H331JCN	CHIP 50V 330P	1	
C7953		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7954		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C7955-59		ECUM1H103ZFN	CHIP 50V 0.01U	5	
C7961		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C7962		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7963		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C7964		ECUM1H270JSN	CHIP 50V 27P	1	
C7965		ECUM1H030DCN	CHIP 50V 3P	1	
C7966		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7967		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C7968,69		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C7970		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7971		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7972		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7973,74		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7975		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7976,77		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7978		ECEA1CK100	E.CAPACITOR 16V 10U	1	
D251-53		MA165	DIODE	2	
D301		MA4091	DIODE	1	
D601		MA165	DIODE	1	
D710		MA3100L	DIODE	1	
D771		MA151WK	DIODE	1	
D772		MA165	DIODE	1	
D773		MA151K	DIODE	1	
D805		MA165	DIODE	1	
D1001		MA723	DIODE	1	
D1003,04		MA723	DIODE	2	
D1007		MA154WA	DIODE	1	
D1010,11		MA165	DIODE	2	
D2001,02		MA165	DIODE	2	
D3002		MA165	DIODE	1	
D3004		MA165	DIODE	1	
D3006		MA723	DIODE	1	
D3009		MA165	DIODE	1	
D3012		MA165	DIODE	1	
D3608		MA165	DIODE	1	
D4003		MA165	DIODE	1	
D4101		MA165	DIODE	1	
D4501		MA151WK	DIODE	1	
D4901		MA151WA	DIODE	1	
D4903,04		MA165	DIODE	2	
D4905		MA4062L	DIODE	1	
D4906-09		MA165	DIODE	4	
D6001		MA154WK	DIODE	1	
D6003-05		MA165	DIODE	3	
D6007		MA154WA	DIODE	1	
D6009-14		MA165	DIODE	6	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6016		MA165	DIODE	1	
D6017		MA4100M	DIODE	1	
D6019		MA154WA	DIODE	1	
D6021		MA156	DIODE	1	
D6024		MA4051L	DIODE	1	
D6025		AK04V2	DIODE	1	
D6026		MA165	DIODE	1	
D6027		MA4075M	DIODE	1	
D6029		MA154WK	DIODE	1	
D6032		MA165	DIODE	1	
D6033		MA723	DIODE	1	
D7951		MA3100L	DIODE	1	
D7952		MA151K	DIODE	1	
DL801		VLD0089	DELAY	1	
DL802		VLD0147	DELAY	1	
FL301		ELB4M022	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0727	FILTER	1	
FL801		VLF0299	FILTER	1	
FL4501,02		VLF0406	FILTER	2	
FL4503		VLF0697	FILTER	1	
FL7951		VLF0702	FILTER	1	
IC251		LM393P	IC	1	
IC301		VEFH03D	HIC	1	
IC302		AN3495K	IC	1	
IC303		MSM6965-3RS	IC	1	
IC701		M51366SP	IC	1	
IC801		VEFH04F	IC	1	
IC3001		AN3396	IC	1	
IC3602		BA7004	IC	1	
IC3901		TA7348P	IC	1	
IC3902		UPD4001BC	IC	1	
IC4001		BA7766AS	IC	1	
IC4101		RC4560DD	IC	1	
IC4501		BA7700K1	IC	1	
IC4502		UPC78L05J	IC	1	
IC4901		MC14052BCP	IC	1	
IC4902		RC4560DD	IC	1	
IC4903		M5201L	IC	1	
IC4904		AN6558	IC	1	
IC4905		UPC78L06J	IC	1	
IC6001		MN188166VHI	IC	1	
IC6002		MN1280R	IC	1	
IC6003		MC14011BCP	IC	1	
IC6004		LM339N	IC	1	
IC6005		AN6609	IC	1	
IC6006		LM393P	IC	1	
IC6007		MC14519BCP	IC	1	
IC7651		AN5421	IC	1	
IC7652		AN5043	IC	1	
IC7653		MN4066BS	IC	1	
IC7951		M51366SP	IC	1	
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F220K	COIL 22UH	1	
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F121K	COIL 120UH	1	
L305		VLQEL05F680K	COIL 68UH	1	
L306		VLQEL05F101K	COIL 100UH	1	
L307		VLQEL05F151K	COIL 150UH	1	
L308		VLQEL05F270K	COIL 27UH	1	
L309,10		VLQEL05F101K	COIL 100UH	2	
L701,02		ELESP680KA	COIL 68UH	2	
L711		VLQ0305J1R2	COIL 1.2UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L714		VLQ0305J1R2	COIL 1.2UH	1	
L715		VLQ0213K680	COIL 68UH	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP120KA	COIL 12UH	1	
L720		ELESP680KA	COIL 68UH	1	
L781		ELESP330KA	COIL 33H	1	
L801		VLQEL05F101K	COIL 100UH	1	
L802-04		VLQEL05F150K	COIL 15UH	3	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L808		VLQEL05F470K	COIL 47UH	1	
L809		VLQEL05F331K	COIL 330UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F470K	COIL 47UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L3001,02		VLQEL05F101K	COIL 100UH	2	
L3003		VLQEL05F120K	COIL 12UH	1	
L3005		VLQEL05F101K	COIL 100UH	1	
L3006		VLQEL05F6R8K	COIL 6.8UH	1	
L3007		VLQEL05F270J	COIL 27UH	1	
L3008		VLQEL05F151K	COIL 150UH	1	
L3009,10		VLQEL05F101K	COIL 100UH	2	
L3013		VLQEL05F820K	COIL 82UH	1	
L3020		VLQEL05F5R6K	COIL 5.6UH	1	
L3611,12		VLQEL05F101K	COIL 100UH	2	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L4102		VLQEL05F1R0K	COIL 1UH	1	
L4104		VLQEL05F101K	COIL 100UH	1	
L4501,02		VLQEL05F101K	COIL 100UH	2	
L7952		ELESP680KA	COIL 68UH	1	
L7953		VLQ0305JR82T	COIL 0.82UH	1	
L7955		ELESP680KA	COIL 68UH	1	
L7957		ELESP680KA	COIL 68UH	1	
P1101		VJP2593	CONNECTOR	1	
P2001		VJP1242T	CONNECTOR(MALE) 2P	1	
P2002		VJP1141	CONNECTOR(MALE) 2P	1	
P3001		VJP1237T	CONNECTOR(MALE) 10P	1	
P4001		VJP1231T	CONNECTOR(MALE) 4P	1	
P4002		VJP1236T	CONNECTOR(MALE) 9P	1	
P4003		VJP1234T	CONNECTOR(MALE) 7P	1	
P4004		VJP1229T	CONNECTOR(MALE) 2P	1	
P4901		VJP1231T	CONNECTOR(MALE) 4P	1	
P6001		VJS1663	CONNECTOR	1	
P6002		VJS2571A004	CONNECTOR	1	
P6003		VJP1393T	CONNECTOR(MALE) 13P	1	
P7401		VJS2571A013	CONNECTOR	1	
P7402		VJS2571A012	CONNECTOR	1	
P7403		VJS2571A011	CONNECTOR	1	
P7404		VJS2571A008	CONNECTOR	1	
P7951		VJP1394T	CONNECTOR(MALE)	1	
PK251		VJR0279	PACK PIN	1	
PK701		VJR0231	PACK PIN	1	
PK702,03		VJR0406	PACK PIN	2	
PK704		VJR0231	PACK PIN	1	
PK4501-03		VJR0290	PACK PIN	3	
PK7952,53		VJR0189	PACK PIN	2	
Q301		2SB709	TRANSISTOR CHIP	1	
Q302,03		2SC2295	TRANSISTOR	2	
Q304		2SD601	TRANSISTOR CHIP	1	
Q601		2SD636	TRANSISTOR	1	
Q703		2SD601	TRANSISTOR	1	(S,T)
Q710		2SC1047	TRANSISTOR	1	
Q712		2SD638	TRANSISTOR	1	
Q713		2SD1328	TRANSISTOR	1	
Q771		2SD601	TRANSISTOR	1	(S,T)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q801		2SD601	TRANSISTOR CHIP	1	
Q802		2SD2295	TRANSISTOR	1	
Q804		2SB709	TRANSISTOR CHIP	1	
Q1001		2SC4024LF	TRANSISTOR	1	
Q1002		2SD601	TRANSISTOR CHIP	1	
Q1003		2SD601A	TRANSISTOR	1	
Q1005		2SD638	TRANSISTOR	1	(R,S)
Q3001		2SA1309	TRANSISTOR	1	
Q3002		2SC3311	TRANSISTOR	1	
Q3003-05		2SC2295	TRANSISTOR	3	
Q3006		2SC3311	TRANSISTOR	1	
Q3007		2SD601	TRANSISTOR CHIP	1	
Q3009,10		2SD601	TRANSISTOR CHIP	2	
Q3011		2SB709	TRANSISTOR CHIP	1	
Q3013		2SD601	TRANSISTOR CHIP	1	
Q3610		2SD601	TRANSISTOR CHIP	1	
Q3901		2SB709	TRANSISTOR CHIP	1	
Q4001		2SD1992A	TRANSISTOR	1	
Q4103		2SD1328	TRANSISTOR	1	
Q4501		2SD601	TRANSISTOR CHIP	1	
Q4502,03		2SD1306	TRANSISTOR	2	
Q4504		2SD601	TRANSISTOR CHIP	1	
Q4901		2SD601	TRANSISTOR CHIP	1	
Q4902		2SB710A	TRANSISTOR	1	(T,W)
Q6001		2SA1309	TRANSISTOR	1	
Q6002-04		2SA1512	TRANSISTOR	3	
Q6006		2SD893	TRANSISTOR	1	
Q6007		2SD592	TRANSISTOR	1	
Q6008		2SC3311	TRANSISTOR	1	
Q6011		2SD1856	TRANSISTOR	1	
Q6012		2SC3311	TRANSISTOR	1	
Q6013-15		2SD601	TRANSISTOR CHIP	3	
Q7951		2SC1047	TRANSISTOR	1	
Q7952		2SB709	TRANSISTOR	1	(S,T)
Q7953		2SC2404	TRANSISTOR CHIP	1	(C,D)
Q7954		2SC1317	TRANSISTOR	1	
Q7955		2SB709	TRANSISTOR	1	(S,T)
QR251-53		UN2213	TRANSISTOR-RESISTOR	3	
QR301-03		UN2212	TRANSISTOR-RESISTOR	3	
QR701,02		UN2213	TRANSISTOR-RESISTOR	2	
QR713		UN2211	TRANSISTOR-RESISTOR	1	
QR801		UN2212	TRANSISTOR-RESISTOR	1	
QR1001		UN2211	TRANSISTOR-RESISTOR	1	
QR1002		UN2213	TRANSISTOR-RESISTOR	1	
QR1005		UN2213	TRANSISTOR-RESISTOR	1	
QR2001		UN2211	TRANSISTOR-RESISTOR	1	
QR3001		UN2212	TRANSISTOR-RESISTOR	1	
QR3002		UN2214	TRANSISTOR-RESISTOR	1	
QR3003		UN2111	TRANSISTOR-RESISTOR	1	
QR3004		UN2213	TRANSISTOR-RESISTOR	1	
QR3005		UN2111	TRANSISTOR-RESISTOR	1	
QR3006,07		DTC363EK	TRANSISTOR-RESISTOR	2	
QR3008		UN2212	TRANSISTOR-RESISTOR	1	
QR3009-11		UN2213	TRANSISTOR-RESISTOR	3	
QR3012		DTC363EK	TRANSISTOR-RESISTOR	1	
QR3013		UN2213	TRANSISTOR-RESISTOR	1	
QR4001		UN2213	TRANSISTOR-RESISTOR	1	
QR4101		UN2213	TRANSISTOR-RESISTOR	1	
QR4102		UN2113	TRANSISTOR-RESISTOR	1	
QR4103,04		UN2112	TRANSISTOR-RESISTOR	2	
QR4105		UN2213	TRANSISTOR-RESISTOR	1	
QR4501,02		UN2213	TRANSISTOR-RESISTOR	2	
QR4901		UN2213	TRANSISTOR-RESISTOR	1	
QR6002-04		UN2213	TRANSISTOR-RESISTOR	3	
QR6005-09		UN2211	TRANSISTOR-RESISTOR	5	
QR6010		UN2213	TRANSISTOR-RESISTOR	1	
QR6011		UN2211	TRANSISTOR-RESISTOR	1	
QR6013		UN2111	TRANSISTOR-RESISTOR	1	
QR6014		UN2113	TRANSISTOR-RESISTOR	1	
QR6015-17		UN2213	TRANSISTOR-RESISTOR	3	
QR6018		UN2113	TRANSISTOR-RESISTOR	1	
QR6019,20		UN2213	TRANSISTOR-RESISTOR	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR6021		UN2113	TRANSISTOR-RESISTOR	1	
QR6022		UN2111	TRANSISTOR-RESISTOR	1	
QR6024		UN2113	TRANSISTOR-RESISTOR	1	
QR6025		UN2212	TRANSISTOR-RESISTOR	1	
QR6027		UN2213	TRANSISTOR-RESISTOR	1	
QR7952		UN2217	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R251		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R252		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R253		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R254		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R255		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R256		ERJ6GEYJ154	CHIP 1/10W 150K	1	
R257		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R258		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R259		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R260		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R261,62		ERJ6GEYJ102	CHIP 1/10W 1K	2	
R265		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R301		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R302		ERJ6GMYJ391	CHIP 1/10W 390	1	
R303		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R304		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R305		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R306		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R307		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R308		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R309		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R310		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R311,12		ERJ6GMYJ392	CHIP 1/10W 3.9K	2	
R313		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R314		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R315		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R317		ERJ6GMYJ471	CHIP 1/10W 470	1	
R318		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R319		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R320		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R325		ERJ6GMYJ151	CHIP 1/10W 150	1	
R326		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R327		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R328		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R329		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R330		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R331		ERJ6GMYJ561	CHIP 1/10W 560	1	
R332		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R334,35		ERJ6GMYJ102	CHIP 1/10W 1K	2	
R338		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R601		ERDS2TJ683	C.RESISTOR 1/4W 68K	1	
R602		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R712		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R713		ERJ6GEYJ681	CHIP 1/10W 680	1	
R714		ERD2FCG330	C.RESISTOR 2W 33	1	<!>
R715		ERJ6GEYJ271	CHIP 1/10W 270	1	
R716		ERJ6GEYJ272	CHIP 1/10W 2.7K	1	
R717		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R718		ERJ6GEYJ754	CHIP 1/10W 750K	1	
R719		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R720		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R721		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R723		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R724		ERJ6GEYJ101	CHIP 1/10W 100	1	
R725		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R726		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R727		ERJ6GEYJ471	CHIP 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R729,30		ERJ6GEYJ331	CHIP 1/10W 330	2	
R737		ERJ6GEYJ274	CHIP 1/10W 270K	1	
R738		ERJ6GEYJ334	CHIP 1/10W 330K	1	
R739		ERJ6GEYJ681	CHIP 1/10W 680	1	
R740		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R743		ERJ6GEYJ470	CHIP 1/10W 47	1	
R744		ERJ6GEYJ821	CHIP 1/10W 820	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R745		ERJ6GEYJ331	CHIP 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R750		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R751		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R756		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R757,58		ERJ6GEYJ102	CHIP 1/10W 1K	2	
R763		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R764		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R772		ERJ6GEYJ271	CHIP 1/10W 270	1	
R773		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R774		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R781		ERJ6GEYJ681	CHIP 1/10W 680	1	
R782		ERJ6GEYJ471	CHIP 1/10W 470	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R801		ERJ6GMYJ271	CHIP 1/10W 270	1	
R802		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R803,04		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R805,06		ERJ6GMYJ471	CHIP 1/10W 470	2	
R807		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R808		ERJ6GMYJ681	CHIP 1/10W 680	1	
R809		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R810		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R815		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R816		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R817,18		ERJ6GMYJ102	CHIP 1/10W 1K	2	
R819		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R820		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R821		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R822		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R823		ERJ6GMYJ271	CHIP 1/10W 270	1	
R824		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R825		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R827		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R828		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R1002		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R1003		ERJ6GMYJ181	CHIP 1/10W 180	1	
R1004		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R1005		ERDS1TJ822	C.RESISTOR 1/2W 8.2K	1	
R1006		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R1007		ERJ6GMYG912	M.RESISTOR CH1/10W 9.1K	1	
R1008		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R1009		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R1010		ERJ6GMYG682	CHIP 1/10W 6.8K	1	
R1011		ERJ6GMYJ561	CHIP 1/10W 560	1	
R1012		ERG2ANJ681U	M.RESISTOR 2W 680	1	
R1013		ERG2ANJ821U	M.RESISTOR 2W 820	1	
R1014		ERX1SJ1R2	M.RESISTOR 1W 1.2	1	
R2001		ERJ6GMYJ271	CHIP 1/10W 270	1	
R2002		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R2005		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R2006		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R2007		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R3001		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3002		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3003		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3004		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R3005		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R3006		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R3007,08		ERJ6GMYJ561	CHIP 1/10W 560	2	
R3009		ERJ6GMYJ391	CHIP 1/10W 390	1	
R3010		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3011		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3012		ERJ6GMYJ821	CHIP 1/10W 820	1	
R3014		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3015		ERJ6GMYJ561	CHIP 1/10W 560	1	
R3017		ERJ6GMYJ561	CHIP 1/10W 560	1	
R3019		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R3020		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R3021		ERJ6GMYJ681	CHIP 1/10W 680	1	
R3022		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3023		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R3024		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3025,26		ERJ6GMYJ222	CHIP 1/10W 2.2K	2	
R3027		ERJ6GMYJ103	CHIP 1/10W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3028		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R3030		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R3031		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3032		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R3033		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R3037		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R3038		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R3043		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3047		ERJ6GMYJ821	CHIP 1/10W 820	1	
R3048		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3049		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3054		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R3055		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3056		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R3057		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3060		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3632		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R3633		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R3634,35		ERJ6GEYJ152	CHIP 1/10W 1.5K	2	
R3636		ERJ6GEYJ561	CHIP 1/10W 560	1	
R3901,02		ERJ6GEYJ750	CHIP 1/10W 75	2	
R3903,04		ERJ6GEYJ472	CHIP 1/10W 4.7K	2	
R3905,06		ERJ6GEYJ750	CHIP 1/10W 75	2	
R3907		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R3908		ERJ6GEYJ750	CHIP 1/10W 75	1	
R3909,10		ERJ6GEYJ684	CHIP 1/10W 680K	2	
R3911		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R3912		ERJ6GEYJ750	CHIP 1/10W 75	1	
R3913		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R3916		ERJ6GEYJ750	CHIP 1/10W 75	1	
R4001		ERJ6GMYJ100	CHIP 1/10W 10	1	
R4002		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4003		ERJ6GMYJ203	CHIP 1/10W 2K	1	
R4004,05		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R4007		ERJ6GMYJ221	CHIP 1/10W 220	1	
R4008		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R4009		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4010		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R4012		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4013		ERJ6GMYJ394	M.RESISTOR CH1/10W 390K	1	
R4014		ERJ6GMYG133	M.RESISTOR CH1/10W 13K	1	
R4015		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R4016		ERJ6GMYK225	M.RESISTOR CH1/10W 2.2M	1	
R4017		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R4018		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4019		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R4020		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R4021		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R4022		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4023		ERJ6GMYG473	CHIP 1/10W 47K	1	
R4024,25		ERJ6GMYG104	CHIP 1/10W 100K	2	
R4026		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R4027		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4029		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R4030		ERJ6GMYJ512	M.RESISTOR CH1/10W 5.1K	1	
R4031		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4035		ERDS2TJ563	C.RESISTOR 1/4W 56K	1	
R4101		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4104		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4105,06		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R4107		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4108		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4109		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4110		EROS2CKG2403	M.RESISTOR 1/4W 240K	1	
R4111		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4112		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4113,14		ERJ6GMYJ563	CHIP 1/10W 56K	2	
R4115		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R4116		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R4117		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R4121		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4501		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4502		ERJ6GMYG681	M.RESISTOR CH1/10W 680	1	
R4503		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4504		VRE0034E112	M.RESISTOR 1/4W 1.1K	1	
R4122		ERDS2TJ472	C. RESISTOR 1/4 W 4.7 K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4505		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4506		ERJ6GMYG183	M.RESISTOR CH1/10W 18K	1	
R4507		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R4508		ERJ6GMYG104	CHIP 1/10W 100K	1	
R4510		ERJ6GMYG561	M.RESISTOR CH1/10W 560	1	
R4511		ERJ6GMYG303	M.RESISTOR CH1/10W 30K	1	
R4512		VRE0034E133	M.RESISTOR 1/4W 13K	1	
R4513		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4514		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4515		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4516		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R4517		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R4520		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4521		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4522		ERJ6GMYJ225	M.RESISTOR CH1/10W 2.2M	1	
R4523		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4525,26		ERJ6GMYJ152	CHIP 1/10W 1.5K	2	
R4527		VRE0034E104	M.RESISTOR 1/4W 100K	1	
R4528		VRE0034E393	M.RESISTOR 1/4W 39K	1	
R4529		ERJ6GEYG123	CHIP 1/10W 12K	1	
R4530		ERJ6GMYJ334	CHIP 1/10W 330K	1	
R4533		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4534		VRE0034E152	M.RESISTOR 1/4W 1500	1	
R4535		ERJ6GMYJ104	C.RESISTOR 1/4W 100K	1	
R4536		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R4537		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4539		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4540		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R4541		ERJ6GMYJ821	CHIP 1/10W 820	1	
R4551		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4552		ERJ6GMYG681	M.RESISTOR CH1/10W 680	1	
R4553		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4554		VRE0034E112	M.RESISTOR 1/4W 1.1K	1	
R4555		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4556		ERJ6GMYG183	M.RESISTOR CH1/10W 18K	1	
R4557		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R4558		ERJ6GMYG104	CHIP 1/10W 100K	1	
R4560		ERJ6GMYG561	M.RESISTOR CH1/10W 560	1	
R4561		ERJ6GMYG303	M.RESISTOR CH1/10W 30K	1	
R4562		VRE0034E912	M.RESISTOR 1/4W 9.1K	1	
R4563		VRE0034E49B	M.RESISTOR 1/4W 49	1	
R4564		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4565		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4566		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R4567		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R4570,71		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R4573		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R4574		ERJ6GMYJ560	M.RESISTOR CH1/10W 56	1	
R4575		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R4576		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4577		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R4901,02		ERJ6GEYJ222	CHIP 1/10W 2.2K	2	
R4903		ERJ6GEYJ221	CHIP 1/10W 220	1	
R4906,07		ERJ6GEYJ221	CHIP 1/10W 220	2	
R4908		ERJ6GEYJ471	CHIP 1/10W 470	1	
R4909		ERJ6GEYJ221	CHIP 1/10W 220	1	
R4910		ERJ6GEYJ471	CHIP 1/10W 470	1	
R4911,12		ERJ6GEYJ222	CHIP 1/10W 2.2K	2	
R4915,16		ERJ6GEYJ393	CHIP 1/10W 39K	2	
R4917		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	1	
R4918		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4919		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	1	
R4920,21		ERJ6GEYJ474	CHIP 1/10W 470K	2	
R4922,23		ERJ6GEYJ393	CHIP 1/10W 39K	2	
R4924		ERDS1FYJ222	C.RESISTOR 1/2W 2.2K	1	
R4925,26		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	2	
R4927		ERJ6GEYJ153	CHIP 1/10W 15K	1	
R4928		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4929		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R4930,31		ERJ6GEYJ684	CHIP 1/10W 680K	2	
R4932		ERJ6GEYG392	M.RESISTOR CH1/10W 3.9K	1	
R4933,34		ERJ6GEYG222	CHIP 1/10W 2.2K	2	
R4935		ERJ6GEYG392	M.RESISTOR CH1/10W 3.9K	1	
R4936,37		ERJ6GEYJ474	CHIP 1/10W 470K	2	
R4938,39		ERJ6GEYJ124	CHIP 1/10W 120K	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4940,41		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R4942		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4943		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R4944-46		ERJ6GEYJ473	CHIP 1/10W 47K	3	
R4947		ERJ6GEYJ123	CHIP 1/10W 12K	1	
R4948,49		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R4950		ERJ6GEYJ123	CHIP 1/10W 12K	1	
R4951		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4952		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4953		ERJ6GEYG222	CHIP 1/10W 2.2K	1	
R4954		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4955		ERJ6GEYG222	CHIP 1/10W 2.2K	1	
R4956		ERJ6GEYJ244	M.RESISTOR CH1/10W 240K	1	
R4957		ERJ6GEYJ334	CHIP 1/10W 330K	1	
R6001		ERJ6GMYJ471	CHIP 1/10W 470	1	
R6003		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6004		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6005		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6006,07		ERJ6GMYJ332	CHIP 1/10W 3.3K	2	
R6008		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6009		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6010,11		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R6016		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6017		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6018		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6019		ERJ6GMYJ121	M.RESISTOR CH1/10W 120	1	
R6020		ERG2SJ180	M.RESISTOR 2W 18	1	
R6021		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6023		ERD2FCVG220	C.RESISTOR 2W 22	1	
R6028		ERJ6GMYJ471	CHIP 1/10W 470	1	
R6029		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6030		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6031		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R6032		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6033		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6034		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6035		ERSB30JR90	M.RESISTOR 1/4W 0.9	1	
R6036		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6038		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6039,40		ERJ6GMYJ182	CHIP 1/10W 1.8K	2	
R6041		ERJ6GMYJ561	CHIP 1/10W 560	1	
R6042		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6043,44		ERJ6GMYJ223	CHIP 1/10W 22K	2	
R6045,46		ERJ6GMYJ473	CHIP 1/10W 47K	2	
R6047		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6048-50		ERJ6GMYJ103	CHIP 1/10W 10K	3	
R6051,52		ERJ6GMYJ564	M.RESISTOR CH1/10W 560K	2	
R6054		ERJ6GMYK395W	M.RESISTOR CH1/10W 3.9M	1	
R6055		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6056		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R6057		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R6058		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6059		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R6060		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6061		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6062,63		ERJ6GMYJ564	M.RESISTOR CH1/10W 560K	2	
R6064-66		ERJ6GMYJ683	CHIP 1/10W 68K	3	
R6067		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R6068		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6069		ERJ6GMYK395W	M.RESISTOR CH1/10W 3.9M	1	
R6071		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6072		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6073-75		ERJ6GMYJ333	CHIP 1/10W 33K	3	
R6076		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6077,78		ERJ6GMYJ101	CHIP 1/10W 100	2	
R6079		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6080		ERJ6GMYJ681	CHIP 1/10W 680	1	
R6081,82		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R6083		ERJ6GMYJ681	CHIP 1/10W 680	1	
R6084		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6085		ERJ6GMYJ184	CHIP 1/10W 180K	1	
R6087		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6088		ERJ6GMYJ184	CHIP 1/10W 180K	1	
R6089		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R6090		ERJ6GMYJ103	CHIP 1/10W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6091		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R6092		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R6093		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R6094-98		ERJ6GMYJ271	CHIP 1/10W 270	5	
R6099,00		ERJ6GMYJ222	CHIP 1/10W 2.2K	2	
R6101		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R6102		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6103		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6105,06		ERJ6GMYJ271	CHIP 1/10W 270	2	
R6107,08		ERJ6GMYJ472	CHIP 1/10W 4.7K	2	
R6109		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6110		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6111		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6112		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6113		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6114		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R6115		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6119-22		ERJ6GMYJ103	CHIP 1/10W 10K	4	
R6123		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R7651		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7654		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7655		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R7656		ERJ6GEYJ151	CHIP 1/10W 150	1	
R7657		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7658		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R7659		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R7661		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7662		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R7663		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R7664		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7671,72		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R7673		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7674		ERJ6GEYJ124	CHIP 1/10W 120K	1	
R7675		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7676		ERG1SJ152	M.RESISTOR 1W 1.5K	1	
R7677		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7678		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R7679		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R7680		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7681,82		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R7683		ERJ6GEYJ563	CHIP 1/10W 56K	1	
R7684		ERJ6GEYJ333	CHIP 1/10W 33K	1	
R7691		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7692		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7951		ERJ6GEYJ153	CHIP 1/10W 15K	1	
R7956		ERJ6GEYJ754	CHIP 1/10W 750K	1	
R7957		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7958		ERJ6GEYJ272	CHIP 1/10W 2.7K	1	
R7959		ERJ6GEYJ271	CHIP 1/10W 270	1	
R7960		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R7961		ERJ6GEYJ681	CHIP 1/10W 680	1	
R7962		ERD2FCG330	C.RESISTOR 2W 33	1	
R7963		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R7964		ERJ6GEYJ821	CHIP 1/10W 820	1	
R7965		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R7966		ERJ6GEYJ470	CHIP 1/10W 47	1	
R7967		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7968		VREO040E471T	V.RESISTOR 470	1	
R7969		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7971		ERJ6GEYJ471	CHIP 1/10W 470	1	
R7972		ERJ6GEYJ821	CHIP 1/10W 820	1	
R7973		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R7974		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	
R7975,76		ERJ6GEYJ471	CHIP 1/10W 470	2	
R7978		ERJ6GEYJ150	CHIP 1/10W 15	1	
R7979		ERJ6GEYJ561	CHIP 1/10W 560	1	
R7980		ERJ6GEYJ102	CHIP 1/10W 1K	1	
SW4902		VSS0236	SWITCH	1	
T703		EIV5EC005A	IFT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
T704		EIV5EC007A	IFT	1	
T711		EIS5EC008A	IFT	1	
T4001		EIQ7QF013Q	IFT	1	
T7951		EIV5EC005A	IFT	1	
VR301		EVNDRAA00B24	V.RESISTOR 20K	1	
VR302		EVN3ACA00B23	V.RESISTOR 2K	1	
VR701		EVNDRAA00B23	V.RESISTOR 2K	1	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR751		EVNDRAA00B53	V.RESISTOR 5K	1	
VR801		EVN3ACA00B52	V.RESISTOR 500	1	
VR802		EVN3ACA00B13	V.RESISTOR 1K	1	
VR803		EVNDRAA00B14	V.RESISTOR 10K	1	
VR2001		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2006		EVNDRAA00B15	V.RESISTOR 100K	1	
VR2009,10		EVND4AA00B25	V.RESISTOR 200K	2	
VR2011		EVNDRAA00B15	V.RESISTOR 100K	1	
VR2013		EVNDRAA00B23	V.RESISTOR 2K	1	
VR2018,19		EVNDRAA00B15	V.RESISTOR 100K	2	
VR3012,13		EVNDRAA00B52	V.RESISTOR 500	2	
VR3020		EVNDRAA00B53	V.RESISTOR 5K	1	
VR4001		EVNDRAA00B14	V.RESISTOR 10K	1	
VR4002		EVNDRAA00B25	V.RESISTOR 200K	1	
VR4004		EVNDRAA00B53	V.RESISTOR 5K	1	
VR4501		EVN3ACA00B53	V.RESISTOR 5K	1	
VR4502		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4503		EVND4AA00B23	V.RESISTOR 2K	1	
VR4505		EVND1AA00B14	V.RESISTOR 10K	1	
VR4507		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4509		EVN3ACA00B53	V.RESISTOR 5K	1	
VR4510		EVN4LCA00B25	V.RESISTOR 200K	1	
VR4512		EVND1AA00B22	V.RESISTOR 200	1	
VR7660		EVM4LGA00B23	V.RESISTOR 2K	1	
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X710		EFCH39MSP3	CRYSTAL OSCILLATOR	1	
X711		EFCS6R0MW5	CRYSTAL OSCILLATOR	1	
X712		EFCS6R0MS5	CRYSTAL OSCILLATOR	1	
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3601		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		VSX0306	CRYSTAL OSCILLATOR	1	
X6002		VSQ0565	SENSOR	1	
X7951		EFCH39MQS1	CRYSTAL OSCILLATOR	1	
		VSC2713	MAIN SHIELD	1	FOR TV DEAMODULATOR
		VSC2712	TOP SHIELD	1	FOR TV DEAMODULATOR
		VSC2714	BOTTOM SHIELD	1	FOR TV DEAMODULATOR
		ENC17952	RF CONVERTER	1	<!>
		ENV87823H3	TUNER	1	<!>
		VSC1068	HEAT SINK	1	FOR IC6002
		VSC1323	HEAT SINK	1	FOR Q1001
		VEJ0760	I/O JACK BORD	1	
		VGU3501	SW KNOB	1	
	■	VEP02325B	SERVO PACK C.B.A.		
			CAPACITORS		
C201		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C202		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C203		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C204		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C205		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C206		ECEA0JKN220	E.CAPACITOR 6.3V 22U	1	
C207		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C208		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C209		ECUX1H471KBN	CHIP 50V 470P	1	
C210		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C2201		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C2204		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2205		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C2206		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2209		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C2210		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C2211		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C2212		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2213		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2214		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C2215		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2216		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2217		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2218		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2219		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C2220		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2221		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2222		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2223		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2224		ECUM1H220JCN	CHIP 50V 22P	1	
C2225		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C2226		ECUM1H101JCN	CHIP 50V 100P	1	
C2227,28		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C2229		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C2230		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C2231		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2232		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2233-35		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2236		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2237-39		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2240		ECUM1H222KBN	CHIP 50V 2200P	1	
C2241		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2242		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C2243		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2244		ECSF1CE105	T.CAPACITOR 16V 1U	1	
C2245		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2246		ECEA1OM47	E.CAPACITOR 10V 47U	1	
C2247		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2248,49		ECUM1H472KBN	CHIP 50V 4700P	2	
C2250		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C2251		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2262		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2263		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2264		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2265		ECUM1H472KBN	CHIP 50V 4700P	1	
C2266		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2267,68		ECUM1H151JCN	CHIP 50V 150P	2	
C2269		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
D201-04		MA165	DIODE	4	
D2201-04		MA165	DIODE	4	
D2205		MA4056M	DIODE	1	
D2212		MA165	DIODE	1	
D2216,17		MA165	DIODE	2	
IC201		LM358P	IC	1	
IC202		RZ4066BD	IC	1	
IC2201		AN3726K	IC	1	
IC2202		MN4013BS	IC	1	
IC2203		MN1280R	IC	1	
IC2204		MN4052BS	IC	1	
IC2205		MN6742VCWK5	IC	1	
IC2206		BA6435S	IC	1	
L2201-03		VLQEL05F101K	COIL 100UH	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L2204		VLQEL05F1R0H	COIL 1UH	1	
P2201		VJP1245T	CONNECTOR(MALE) 5P	1	
P2202		VJS1666	CONNECTOR(FEMALE)	1	
P2203		VJP1148	CONNECTOR(MALE) 2P	1	
Q201		2SD601	TRANSISTOR CHIP	1	
Q2201		2SD601	TRANSISTOR CHIP	1	
Q2202		2SC2295	TRANSISTOR	1	
Q2203		2SD602	TRANSISTOR CHIP	1	
Q2204-09		2SD601	TRANSISTOR CHIP	6	
QR201		UN2213	TRANSISTOR-RESISTOR	1	
QR2201,02		UN2117	TRANSISTOR-RESISTOR	2	
QR2206-09		UN2213	TRANSISTOR-RESISTOR	4	
QR2210		UN2212	TRANSISTOR-RESISTOR	1	
QR2213		UN2112	TRANSISTOR-RESISTOR	1	
QR2214		UN2213	TRANSISTOR-RESISTOR	1	
QR2215		UN2113	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R201,02		ERJ6GEYJ223	CHIP 1/10W 22K	2	
R203		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R204		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R205		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R206		ERJ6GEYJ683	CHIP 1/10W 68K	1	
R207,08		ERJ6GEYJ183	CHIP 1/10W 180K	2	
R209		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R210		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R211		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R212		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R213		ERJ6GEYJ272	CHIP 1/10W 2.7K	1	
R214		ERJ6GEYJ684	CHIP 1/10W 680K	1	
R215		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R216		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R217		ERJ6GEYJ333	CHIP 1/10W 33K	1	
R218		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R219		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R220		ERJ6GEYJ221	CHIP 1/10W 220	1	
R221		ERJ6GEYJ333	CHIP 1/10W 33K	1	
R222		ERJ6GEYJ271	CHIP 1/10W 270	1	
R223		ERJ6GEYJ122	CHIP 1/10W 1.2K	1	
R2201		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R2202		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R2203		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R2204		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2205		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R2206		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R2207		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R2208		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R2209		ERJ6GMYJ471	CHIP 1/10W 470	1	
R2210		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R2211-13		ERJ6GMYJ223	CHIP 1/10W 22K	3	
R2214		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R2215,16		ERJ6GMYJ332	CHIP 1/10W 3.3K	2	
R2217		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2218		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R2219		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R2220		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2221		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R2222		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R2223,24		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R2225		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R2226		ERJ6GMYJ821	CHIP 1/10W 820	1	
R2227		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2228		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R2229-33		ERJ6GMYJ102	CHIP 1/10W 1K	5	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2236		ERJ6GMYG362	M.RESISTOR CH1/10W 3.6K	1	
R2237		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R2238,39		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2240		ERX12SJR47E	M.RESISTOR 1/2W 0.47	1	
R2241,42		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2243		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R2244		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R2245		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R2246		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2247		ERJ6GMYG334	M.RESISTOR CH1/10W 330K	1	
R2248		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R2249		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2250		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2251		ERJ6GMYJ151	CHIP 1/10W 150	1	
R2252		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R2253,54		ERJ6GMYJ821	CHIP 1/10W 820	2	
R2255		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R2256		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2257		ERJ6GMYJ681	CHIP 1/10W 680	1	
R2258		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R2259		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R2260		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2261		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R2266		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2288		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R2289		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2290		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R2292		ERJ6GMYG392	M.RESISTOR CH1/10W 3.9K	1	
X2201		VSX0225	CRYSTAL OSCILLATOR	1	
		VSC0075	HEAT SINK	1	FOR IC2206
		VMC0075	HEAT SINK HOLD SPRING	1	FOR IC2206
		VMZ1352	HEAT SINK COVER	1	FOR IC2206
	■	VEP01353E	POWER C.B.A.		
			CAPACITORS		
C1101		ECQU2A154MN	P.CAPACITOR 100V 0.15U	1	<!>
C1102		ECQU2A683MN	P.CAPACITOR 100V 0.068U	1	<!>
C1108		ECOS2GU820	C.CAPACITOR 400V 80P	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473MZ	P.CAPACITOR 630V 0.047U	1	
C1111		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	
C1112		ECQB1H682JZ	P.CAPACITOR 50V 6800P	1	
C1113		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C1114		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1115		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C1117		ECQP1101T404	M.CAPACITOR 100V 100P	1	
C1118		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1119,20		ECEA1DPS681	E.CAPACITOR 20V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECEA1AFZ331	E.CAPACITOR 10V 330U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECEA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C1136		ECQV1H105JZ	P.CAPACITOR 50V 1U	1	<!>
C1142		VCC0021	C.CAPACITOR	1	<!>
C1145		VCC0021	C.CAPACITOR	1	<!>
C1147		VCC0022	C.CAPACITOR 1000P	1	<!>
C1149		ECKF1H821KB	C.CAPACITOR 50V 820P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D1101		SNR-300K4	SURGE ABSORBER	1	<!>
D1102		S1WBA60	DIODE	1	<!>
D1103		VSD0002	DIODE	1	
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4030L	DIODE	1	<!>
D1107		MA165	DIODE	1	
D1108		ERA22-02	DIODE	1	
D1109		RL4ZPLF	DIODE	1	
D1110		MA185	DIODE	1	
D1111		31DQ04FC6	DIODE	1	
D1112		ERB83-004	DIODE	1	
D1113		MA2200B	DIODE	1	
D1114		MA4130L	DIODE	1	
IC1101		STRD6008X	IC	1	<!>
IC1102		STK5391	IC	1	
IC1103		SE013E	IC	1	
L1102		ELF18D290A	LINE FILTER	1	<!>
L1103		VLQ0335	COIL	1	
P1101		VJP1929T	CONNECTOR(MALE) 14P	1	
P1102		VJS2625	AC INLET	1	<!>
Q1101		PC111	PHOTO COUPLER	1	<!>
Q1102		2SD1330	TRANSISTOR	1	
			RESISTORS		
R1101		ERC12GM334	S.RESISTOR 1/2W 330K	1	<!>
R1102,03		ERDS1TJ563	C.RESISTOR 1/2W 56K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1105		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1107		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1108		ERD2FTVG681	C.RESISTOR 1/4W 680	1	
R1109		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R1110		ERG2SJ180	M.RESISTOR 2W 18	1	
R1111		ERG3SJ270	M.RESISTOR 3W 27	1	
R1113		ERG1SJ182E	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1123,24		ERDS2TJ474	C.RESISTOR 1/4W 470K	2	
R1125		ERW1PK2R2	W.RESISTOR 1/2W 2.2	1	
T1101		VLT0569	TRANSFORMER	1	<!>
		VFJ0318	FUSE HOLDER	4	
		VMZ1183	CAPACITOR COVER	1	
		VMZ1184	CAPACITOR COVER	1	
	■	VEP05134B	HEAD AMP C.B.A.		
			CAPACITORS		
C501		ECUM1H102KBN	CHIP 50V 1000P	1	
C502,03		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C504		ECEA1HK010	E.CAPACITOR 50V 1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C505		ECUM1H102KBN	CHIP 50V 1000P	1	
C507,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C509		ECUM1H332KBN	CHIP 50V 3300P	1	
C511		ECUM1E473ZFN	CHIP 25V 0.047U	1	
C513		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C514		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C515		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C517		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C518		ECUM1H150JCN	CHIP 50V 15P	1	
C519,20		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C523		ECUM1H150JCN	CHIP 50V 15P	1	
C524,25		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C527		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C530		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C532		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C533		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C534		ECUM1H102KBN	CHIP 50V 1000P	1	
C535		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C536		ECUM1H102KBN	CHIP 50V 1000P	1	
C537		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C551		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C552		VCEA1AAC470	E.CAPACITOR 10V 47U	1	
C553		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C555-59		ECUM1H103ZFN	CHIP 50V 0.01U	5	
C560		ECEA0JPK470	E.CAPACITOR 6.3V 47U	1	
C561		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C562,63		ECUM1H471KBN	CHIP 50V 470P	2	
C564,65		ECUM1H101JCN	CHIP 50V 100P	2	
C566		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C567		ECUM1H101JCN	CHIP 50V 100P	1	
C569		ECUM1H050DCN	CHIP 50V 5P	1	
D501,02		MA165	DIODE	2	
IC501		AN3334K	IC	1	
IC502		VCR0271	IC	1	
IC551		BA7740FS	IC	1	
L502		VLQ0188K330	COIL 33UH	1	
L504		VLQEL05F101K	COIL 100UH	1	
L505		VLQ0188K330	COIL 33UH	1	
L506		VLQ0188K6R8	COIL 6.8UH	1	
L551,52		VLQEL05F101K	COIL 100UH	2	
L553,54		VLQ0213K2R2	COIL 2.2UH	2	
P501		VJP1250T	CONNECTOR(MALE) 10P	1	
P502		VJS2603	CONNECTOR	1	
P551		VJP1236T	CONNECTOR(MALE) 9P	1	
Q501		2SB709	TRANSISTOR CHIP	1	
			RESISTORS		
R501		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R502		ERJ6GMYJ334	CHIP 1/10W 330K	1	
R503		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R504,05		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	2	
R507		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R508		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R510		ERJ6GMYJ471	CHIP 1/10W 470	1	
R512		ERJ6GMYJ331	CHIP 1/10W 330	1	
R513		ERJ6GMYJ821	CHIP 1/10W 820	1	
R514		ERJ6GMYJ100	CHIP 1/10W 10	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R515		ERJ6GMYJ821	CHIP 1/10W 820	1	
R516		ERJ6GMYJ561	CHIP 1/10W 560	1	
R517,18		ERJ6GMYJ100	CHIP 1/10W 10	2	
R519		ERJ6GMYJ561	CHIP 1/10W 560	1	
R520		ERJ6GMYJ331	CHIP 1/10W 330	1	
R521		ERJ6GMYJ100	CHIP 1/10W 10	1	
R522		ERJ6GMYJ101	CHIP 1/10W 100	1	
R523		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R551,52		ERJ6GMYJ473	CHIP 1/10W 47K	2	
R553		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R554		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R555		ERJ6GMYJ243W	M.RESISTOR CH1/10W 24K	1	
R556		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R557		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R558		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R559		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R560		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R561,62		ERJ6GMYJ152	CHIP 1/10W 1.5K	2	
R563		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R564		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R565		ERJ6GMYJ100	CHIP 1/10W 10	1	
R566,67		ERJ6GMYJ471	CHIP 1/10W 470	2	
R568		ERJ6GMYJ391	CHIP 1/10W 390	1	
VR501,02		EVND1AA00B23	V.RESISTOR 2K	2	
		VSC2668	TOP SHIELD	1	
		VSC2669	BOTTOM SHIELD	1	
		VSC2670	MAIN SHIELD	1	
	■	VEP06533D	VR C.B.A.		
			CAPACITORS		
C6503		ECEA1AKS330	E.CAPACITOR 10V 33U	1	
C6504		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	1	
C6505		ECEA1CKS330	E.CAPACITOR 16V 33U	1	
C6507		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6508,09		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	2	
C6510		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
D6501		LN21RCPHL	LED	1	
IC6501		VCR0172	IC	1	
J6301		VJJ0192	CONNECTOR	1	
J6302		VJJ0210	CONNECTOR	1	
P6501		VJP1247T	CONNECTOR(MALE) 7P	1	
P6502		VJS2357A015	CONNECTOR	1	
P6503		VJP1394T	CONNECTOR(MALE)	1	
P6504		VJP1244T	CONNECTOR(MALE) 4P	1	
			RESISTORS		
R6501		EROS2CKG1601	M.RESISTOR 1/4W 1.6K	1	
R6502		EROS2CKG2000	M.RESISTOR 1/4W 200	1	
R6503		EROS2CKG1601	M.RESISTOR 1/4W 1.6K	1	
R6504		EROS2CKG2000	M.RESISTOR 1/4W 200	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6505		EROS2CKG1102	M.RESISTOR 1/4W 11K	1	
R6506		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6507		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
SW6501		EVQQS307K	SWITCH	1	
VR3004		EWAKFKXB3B24	V.RESISTOR 20K	1	
VR6501		EWAKABXB3C23	V.RESISTOR 2K	1	
VR6503		EWANYGX05J24	V.RESISTOR 20K	1	
		KL04	LED SPACER	1	
		VJF0691	JACK HOLDER	1	
		VYC0160	REC VR PANEL UNIT	1	
		VGU4495	REC VR KNOB	2	
	■	VEP07549A	NICAM DECODER C.B.A.		
			CAPACITORS		
C7301		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7302		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7303		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7304		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7305,06		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7307		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7308-10		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C7311		VCEA0JAC470	E.CAPACITOR 6.3V 47U	1	
C7312,13		ECUM1H220JCN	CHIP 50V 22P	2	
C7314		ECQP1H681JZ	P.CAPACITOR 50V 680P	1	
C7315		ECEA1CPB100	E.CAPACITOR 16V 10U	1	
C7316		VCEA0JAC470	E.CAPACITOR 6.3V 47U	1	
C7317		ECQP1H122JZ	P.CAPACITOR 50V 1200P	1	
C7318		VCEA0JAC221	E.CAPACITOR 6.3V 220U	1	
C7319		ECQP1H122JZ	P.CAPACITOR 50V 1200P	1	
C7320		VCEA0JAC101	E.CAPACITOR 6.3V 100U	1	
C7321		VCEA0JAC470	E.CAPACITOR 6.3V 47U	1	
C7322		ECQP1H681JZ	P.CAPACITOR 50V 680P	1	
C7323		ECEA1CPB100	E.CAPACITOR 16V 10U	1	
C7324		VCEA1CAC470	E.CAPACITOR 16V 47U	1	
C7325,26		ECEA1CPB100	E.CAPACITOR 16V 10U	2	
C7327,28		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C7329,30		VCEA1CAC470	E.CAPACITOR 16V 47U	2	
C7331		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7332,33		ECEA1CPK100	E.CAPACITOR 16V 10U	2	
C7334,35		ECUM1H222KBN	CHIP 50V 2200P	2	
C7336		ECEA1CPK100	E.CAPACITOR 16V 10U	1	
C7337,38		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7339		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7342		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7343		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7344		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C7345		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7348		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7349		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7350,51		VCEA1CAC100	E.CAPACITOR 16V 10U	2	
C7901,02		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7903		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C7904		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7905		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7906,07		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7908,09		ECEA1HKR47	E.CAPACITOR 50V 0.47U	2	
C7910,11		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7912		ECUM1H180JCN	CHIP 50V 18P	1	
C7913		ECUX1H560JCN	CHIP 50V 56P	1	
C7914		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7915		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C7916		ECUM1H180JCN	CHIP 50V 18P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7917,18		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7919,20		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C7921,22		ECUM1H221JN	C.CAPACITOR CH 50V 220P	2	
C7923-25		ECUM1H150JCN	CHIP 50V 15P	3	
C7926		ECUM1H180JCN	CHIP 50V 18P	1	
C7927		ECUX1H560JCN	CHIP 50V 56P	1	
C7928		ECUM1H180JCN	CHIP 50V 18P	1	
C7929		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7930		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C7931		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7932,33		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C7940,41		ECRHA020D41	TRIMMER	2	
D7301		MA151WK	DIODE	1	
D7302		MA151A	DIODE	1	
D7303		MA151WA	DIODE	1	
D7304		MA28W	DIODE	1	
D7305		MA151WK	DIODE	1	
D7306		MA151WA	DIODE	1	
D7307		MA151A	DIODE	1	
D7901		MA3110L	DIODE	1	
FL7301-04		VLF0634	FILTER	4	
FL7309-11		VLF0632	FILTER	3	
FL7313		VLF0632	FILTER	1	
FL7314		VLF0634	FILTER	1	
FL7315,16		VLF0701	FILTER	2	
FL7901,02		VLF0634	FILTER	2	
IC7301		TC6011N	IC	1	
IC7302		TC5563APL	IC	1	
IC7303		TD6710AN	IC	1	
IC7304		AN6572	IC	1	
IC7305,06		M5201L	IC	2	
IC7901		TA8662N	IC	1	
L7301,02		VLP0054	COIL	2	
L7901,02		ELESP821KA	COIL 820H	2	
P7301		VJP1393T	CONNECTOR(MALE) 13P	1	
Q7301		2SC1317	TRANSISTOR	1	(Q,R,S,T)
Q7302		2SB709	TRANSISTOR CHIP	1	
Q7303,04		2SD1328	TRANSISTOR	2	
Q7305		2SB709	TRANSISTOR CHIP	1	
Q7307		2SB709	TRANSISTOR CHIP	1	
Q7901		2SC1317	TRANSISTOR	1	(Q,R,S,T)
QR7301		UN2211	TRANSISTOR-RESISTOR	1	
QR7302		UN2212	TRANSISTOR-RESISTOR	1	
QR7303		UN2112	TRANSISTOR-RESISTOR	1	
QR7304		UN2113	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R7301-06		ERJ6GEYJ473	CHIP 1/10W 47K	6	
R7307		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R7308,09		ERJ6GEYJ331	CHIP 1/10W 330	2	
R7310		ERJ6GEYJ683	CHIP 1/10W 68K	1	
R7311,12		ERJ6GEYJ333	CHIP 1/10W 33K	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7313,14		ERJ6GEYJ472	CHIP 1/10W 4.7K	2	
R7315		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R7316		ERJ6GEYJ391	CHIP 1/10W 390	1	
R7317		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R7318		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7319		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R7320		ERJ6GEYJ391	CHIP 1/10W 390	1	
R7321		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R7322		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7323,24		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R7325		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R7326		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R7327		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7328,29		ERJ6GEYJ272	CHIP 1/10W 2.7K	2	
R7330		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R7331,32		ERJ6GEYJ104	CHIP 1/10W 100K	2	
R7333,34		ERJ6GEYJ272	CHIP 1/10W 2.7K	2	
R7335		ERJ6GEYJ471	CHIP 1/10W 470	1	
R7336,37		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R7338		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R7339		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R7340		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7341		ERJ6GEYJ124	CHIP 1/10W 120K	1	
R7350,51		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R7352-54		ERJ6GEYJ682	CHIP 1/10W 6.8K	3	
R7355		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R7901		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7902		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R7903		ERJ6GEYJ154	CHIP 1/10W 150K	1	
R7904		ERJ6GEYJ391	CHIP 1/10W 390	1	
R7905		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R7906,07		ERJ6GEYJ102	CHIP 1/10W 1K	2	
R7908		ERJ6GEYJ471	CHIP 1/10W 470	1	
R7909		ERJ6GEYJ393	CHIP 1/10W 39K	1	
VR7301,02		EVN38CA00B53	V.RESISTOR 5K	2	
X7301		VSX0294	CRYSTAL OSCILLATOR	1	
X7901		VSX0292	CRYSTAL OSCILLATOR	1	
X7902		VSX0291	CRYSTAL OSCILLATOR	1	
		VSC2731	TOP SHIELD	1	
		VSC2732	MAIN SHIELD	1	
		VSC2733	BOTTOM SHIELD	1	
	■	VEP06537A	JOG/SHUTTLE C.B.A.		
D6701-03		LN38GCPP	LED	3	
P6701		VJS2621	CONNECTOR	1	
QR6701		UN1112	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6702		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R6703		EROS2CKG1802	M.RESISTOR 1/4W 18K	1	
R6704-06		EROS2CKG1801	M.RESISTOR 1/4W 1.8K	3	
R6707		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6708		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R6709		EROS2CKG9102	M.RESISTOR 1/4W 91K	1	
R6710		EROS2CKG1202	M.RESISTOR 1/4W 12K	1	
R6711		EROS2CKG6802	M.RESISTOR 1/4W 68K	1	
R6712		EROS2CKG3302	M.RESISTOR 1/4W 33K	1	
R6713		EROS2CKG5102	M.RESISTOR 1/4W 51K	1	
R6714		EROS2CKG1203	M.RESISTOR 1/4W 120K	1	
SW6701		EVQQS307K	SWITCH	1	
	■	VEP07527D	TIMER C.B.A.		
			CAPACITORS		
C6701		ECEA0JK470I	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMER 30P	1	
C7502		ECUM1H080DCN	CHIP 50V 80P	1	
C7503		ECUM1H330JCN	CHIP 50V 33P	1	
C7504		ECUM1H220JCN	CHIP 50V 22P	1	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7509		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7513		ECUX1H560JCN	CHIP 50V 56P	1	
C7514		ECUM1H101JCN	CHIP 50V 100P	1	
C7520		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7521		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7522		ECUM1H223ZFN	CHIP 50V 0.022U	1	
C7523,24		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C7525		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		MA3068	DIODE	1	
D7502		MA73	DIODE	1	
D7507,08		MA73	DIODE	2	
D7510		MA73	DIODE	1	
D7513		MA73	DIODE	1	
D7516,17		MA73	DIODE	2	
D7530		MA73	DIODE	1	
D7532-41		MA73	DIODE	10	
D7550,51		LN28RCPL	DIODE	2	
D7553		LN28RCPL	DIODE	1	
D7555		LN28RCPL	DIODE	1	
D7556		LN38GCPL	DIODE	1	
D7557		LN28RCPL	DIODE	1	
D7560		MA73	DIODE	1	
DP7501		VSL0144	DISPLAY TUBE	1	
IC6701		UPC1490HA	IC	1	
IC7501		MN187125VHP	IC	1	
IC7502		MN12261	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280T	IC	1	
IC7505		BA6810S	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L7501		VLQEL05F221K	COIL 220UH	1	
P7501		VJS2651B013W	CONNECTOR	1	
P7502		VJS2651B012W	CONNECTOR	1	
P7503		VJS2651B011W	CONNECTOR	1	
P7505		VJS2357A020	CONNECTOR(FEMALE)	1	
P7506		VJS2651B008W	CONNECTOR	1	
P7507		VJP2621	CONNECTOR	1	
Q7501		2SD601	TRANSISTOR CHIP	1	
QR7501		UN2213	TRANSISTOR-RESISTOR	1	
QR7502		UN2112	TRANSISTOR-RESISTOR	1	
QR7503		UN2113	TRANSISTOR-RESISTOR	1	
QR7505		UN2111	TRANSISTOR-RESISTOR	1	
QR7510,11		UN2112	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R6703		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6703		ERDS2TJ133	C.RESISTOR 1/4W 13K	1	
R6703		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6703		ERDS2TJ183	C.RESISTOR 1/4W 18K	1	
R7501		ERJ6GEYJ122	CHIP 1/10W 1.2K	1	
R7502		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R7503		ERJ6GEYJ221	CHIP 1/10W 220	1	
R7504		ERJ6GEYJ101	CHIP 1/10W 100	1	
R7505		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7506		ERJ6GEYJ821	CHIP 1/10W 820	1	
R7507		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	
R7508-10		ERJ6GEYJ103	CHIP 1/10W 10K	3	
R7511		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7512		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7513		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R7514		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7523-28		ERJ6GEYJ182	CHIP 1/10W 1.8K	6	
R7529		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7531,32		ERJ6GEYJ332	CHIP 1/10W 3.3K	2	
R7533		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7534		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7536		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7538		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7539		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7540		ERJ6GEYG223	CHIP 1/10W 22K	1	
R7541		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7542-44		ERJ6GEYJ473	CHIP 1/10W 47K	3	
R7547		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7548		ERJ6GEYJ181	CHIP 1/10W 180	1	
RX7501		EXBF11E104J	RESISTOR-RESISTOR	1	
RX7502		EXBF8E104J	COMBINATION RARTS	1	
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
		VFJ0693	DISPLAY TUBE HOLDER	1	
		VMD1343	LED SPACER	1	
		VSC2671	MAIN SHIELD	1	FOR IR RECEIVER C.B.A
		VSC2672	BOTTOM SHIELD	1	FOR IR RECEIVER C.B.A

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP00K88C	FE HEAD C.B.A.		
			CAPACITORS		
C1401		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C1402		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C1403		ECQB1H333KH	P.CAPACITOR 50V 0.033U	1	
CR1401		EXED103Z333C	CAPACITOR-RESISTOR	1	
L1401		VLQEL05F101K	COIL 100UH	1	
P1502		VJP1148	CONNECTOR 2P	1	
Q1401		2SD636	TRANSISTOR	1	(R)
T1401		EIQ7QF012Q	TRANSFORMER	1	
	■	VEP00M86A	FG AMP C.B.A.		
			CAPACITORS		
C1510		ECUM1H101JCN	CHIP 50V 100P	1	
C1511		ECUM1H104ZFM	C.CAPACITOR 50V 0.1U	1	
C1512		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C1513		ECUM1H101JCN	CHIP 50V 100P	1	
C1514		ECUM1H104ZFM	C.CAPACITOR 50V 0.1U	1	
IC1501		UPC358G	IC	1	
L1510,11		VLP0083	FILTER	2	
P1505		VJS1456	CONNECTOR(FEMALE)	1	
P1506		VJS1685	CONNECTOR	1	
			RESISTORS		
R1510		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R1511		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R1512		ERJ6GMYJ105	CHIP 1/10W 1M	1	
R1513-16		ERJ6GMYJ332	CHIP 1/10W 3.3K	4	
R1517		ERJ6GMYJ105	CHIP 1/10W 1M	1	
R1518		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R1519		ERJ6GMYJ473	CHIP 1/10W 47K	1	
	■	VEP00N05A	CYLINDER DRIVE C.B.A.		
			CAPACITORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2901-03		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	3	
C2904-06		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	3	
C2907		ECUM1E683KBM	C.CAPACITOR CH 25V 0.068U	1	
C2908		ECUM1E473KBM	C.CAPACITOR CH 25V 0.047U	1	
C2909		ECQV1H104JS	P.CAPACITOR 50V 0.1U	1	
C2910,11		ECEA1CKS100	E.CAPACITOR 16V 10U	2	
C2912		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
IC2901		AN3815K	IC	1	
P2901		VJP2603	CONNECTOR	1	
P2902		VJP1232T	CONNECTOR(MALE) 5P	1	
			RESISTORS		
R2901		ERX12ANJR47	M.RESISTOR 1/2W 0.47	1	
	■	VEP66079D	REMOTECONTROLLER C.B.A.		
			CAPACITORS		
C6801		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C6802		ECUM1E104ZFM	CHIP 25V 0.1U	1	
C6803		ECEV1CAN4R7	E.CAPACITOR 16V 4.7U	1	
C6804		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6805,06		ECUM1H330JCN	CHIP 50V 33P	2	
C6807-09		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C6810-12		ECUM1E104ZFM	CHIP 25V 0.1U	3	
D1		LN247RCALUVT	DIODE	1	
D6801		SE303ACYTF	DIODE	1	
D6802-12		MA221	DIODE	11	
D6819		MA221	DIODE	1	
IC6801		MN158453VHM	IC	1	
IC6802		AN8355S	IC	1	
L6801		ELT3K017B	COIL	1	
Q1		PN147	TRANSISTOR	1	
Q6801		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q6802		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q6803		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
QR6802		FA1A4M	RESISTOR-RESISTOR	1	
QR6803		FA1L4Z	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R14		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R15		ERJ6GMYJ153	M.RESISTOR CH1/10W 15K	1	
R16		ERJ6GMYJ334	M.RESISTOR CH1/10W 330K	1	
R6801		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6802-04		ERJ6GMYJ474	CHIP 1/10W 470K	3	
R6805,06		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R6807		ERJ8GCYJ120	M.RESISTOR CH 1/8W 12	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6808		ERJ8GCYJ150	M.RESISTOR CH 1/8W 15	1	
R6809		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6810		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6811		ERJ6GMYJ684	CHIP 1/10W 680K	1	
R6812		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R6813		ERJ6GMYJ120	CHIP 1/10W 12	1	
SN6801		VSQ0567	SENSOR	1	
VR6801		EVNDXAA03B34	V.RESISTOR 30K	1	
X6801		VSX0245	CRYSTAL OSCILLATOR	1	
X6802		EFBAL30D001K	CRYSTAL OSCILLATOR	1	
	■	VXA3553	MECHANISM CONNECTION C.B.A.		
IC1501,02		ON2170	PHOTO COUPLER	2	
P1504		VJS1493	CONNECTOR 15P	1	
	■	VEK3578	PHOTO TR (S) C.B.A.		
			CAPACITOR		
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1501		PN150NV	PHOTO TRANSISTOR	1	
		VMD0645	PHOTO TRANSISTOR HOLDER	1	
	■	-------	PHOTO TR (T) C.B.A.		
			CAPACITOR		
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
P1508		VJS2165	CONNECTOR 6P	1	
Q1502		PN150NV	PHOTO TRANSISTOR	1	
			RESISTOR		
R1503		ERDS2TJ222	C.RESISTOR 1/2W 2.2K	1	
		VMD0645	PHOTO TRANSISTOR HOLDER	1	

4-4. MECHANICAL REPLACEMENT PARTS LIST (NV-F70EV)

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0418	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VXA3520	LED HOLDER UNIT	1	
4(1)		VHD0342	CYLINDER SCREW	3	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0684	CYLINDER UNIT	1	<!>
7(1)		VEH0433	UPPER CYLINDER UNIT	1	
8(1)		VRH0015	HEATER	1	
9(1)		VMA6884	MAIN HOLDER	1	
10(1)		VSC2188	CYLINDER C.B.A.SHIELD PLATE	1	
11(1)		VXL1855	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0267	TENSION BAND UNIT	1	
14(1)		VXR0179	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
17(1)		VBS0038	FE HEAD	1	
18(1)		VMD1316	TENSION SPRING HOOK	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	1	
23(1)		VES0486	SAFETY SW	1	
24(1)		VXZ0259	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0274	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0262	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VMA7829	REINFORCEMENT PLATE (F)	1	
29(1)		VMA7830	REINFORCEMENT PLATE (R)	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0110	ADJUST NUT	1	
37(1)		VMA7831	HEAD BASE	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1910	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1858	PRESSURE ROLLER UNIT	1	
46(1)		VMB1941	PIN PRESSURE SPRING	1	
47(1)		VML2232	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE SPRING	1	
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP1094	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VSJ0073	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB2012	MAIN BRAKE SPRING	1	
71(1)		VXR0176	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
74(1)		VSC1843	HEAT SINK PLATE	1	
75(1)		VHD0329	HEAT SINK SCREW	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0425	UPPER CYLINDER SCREW	2	
84(1)		VMX1088	SUPPLY UPPER LIMITER	1	
85(1)		VDP1072	SUPPLY ROLLER	1	
86(1)		VMX0876	P1 COLLAR	1	
87(1)		VMX1533	SUPPLY ROLLER LIMITER	1	
88(1)		VMX1544	P4 UPPER LIMITER	1	
89(1)		VMX1568	P4 SLEEVE	1	
90(1)		VMX1534	P4 LOWER LIMITER	1	
91(1)		VMA7832	MOTOR MOUNT PLATE	1	
92(1)		VXA3517	WORM WHEEL BEARING UNIT	1	
93(1)		VXA3701	TENSION PULLEY BASE (A) UNIT	1	
94(1)		VXA3564	REEL MOTOR BRACKET UNIT	1	
95(1)		VXP1047	WORM GEAR UNIT	1	
96(1)		VEM0320	REV MOTOR	1	
97(1)		VMX1535	WORM WASHER	1	
98(1)		VWJ15TW060M	FLEXIBLE CADE	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1883	SUB LEVER SPRING	1	
103(2)		VXA3510	SUB LEVER UNIT	1	
104(2)		VMM0204	MAIN LEVER	1	
105(2)		VXL1873	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA3512	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA3516	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0574	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0547	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1031	TAKE UP REEL GEAR UNIT	1	
128(2)		VXP0981	SUPPLY REEL GEAR UNIT	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
135(2)		VEK4097	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP1050	CENTRE PULLEY UNIT	1	
138(2)		VDG0564	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3515	SECTOR GEAR UNIT	1	
142(2)		VDG0516	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML2266	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0546	INTERMEDIATE GEAR	1	
147(2)		VXL1861	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
151(2)		VXP1029	REVIEW CLUTCH UNIT	1	
152(2)		VXP1030	TENSION RELEASE CLUTCH UNIT	1	
153(2)		VXL1851	REVIEW ARM UNIT	1	
154(2)		VML2197	TENSION RELEASE LEVER	1	
155(2)		VMX1536	CUT WASHER	1	
156(2)		VML2233	SUB CAM FOLLOWER	1	
157(2)		VMX1495	RUBBER STOPPER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
158(2)		VDG0517	SUB LEVER CAM	1	
159(2)		VDV0199	REVIEW CLUTCH TIMING BELT	1	
160(2)		VML2200	REVIEW CONTROL LEVER	1	
161(2)		VHD0431	STATOR SPACER SCREW	1	
162(2)		VHN0102	STATOR NUT	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA3707	CASSETTE HOLDER UNIT	1	
203(3)		VXA3499	HOLDER GUIDE (L) UNIT	1	
208(3)		VXA3494	HOLDER ANGLE UNIT	1	
209(3)		VMA7995	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD1352	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3495	SIDE PLATE (R) UNIT	1	
221(3)		VXA3498	SLIDE SW UNIT	1	
229(3)		VXP0987	MAIN SHAFT UNIT	1	
230(3)		VMB1836	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1837	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF1212	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
241(3)		VMA7999	CASSETTE STOPPER ANGLE	1	
300(4)		VYP2676	TOP PANEL UNIT	1	
301(4)		VHD0165	TOP PANEL SCREW	4	
302(4)		VYP2552	FRONT PANEL UNIT	1	
303(4)		VGU4497	DOOR OPEN BUTTON	1	
304(4)		VGU4498	DOOR LOCK LEVER	1	
305(4)		VGQ1675	LOCK LEVER HOLDER	1	
306(4)		VMB1963	LOCK LEVER SPRING	1	
307(4)		VXU0928	JOG KNOB UNIT	1	
308(4)		VGU4785	SHUTTLE KNOB	1	
309(4)		VGQ1655	SHUTTLE LING	1	
310(4)		VYF1332	SUPPORT PANEL UNIT	1	
311(4)		VKC0329	SERVO HINGE CLIP	2	
312(4)		VJF0553	SERVO SUPPORT ANGLE	1	
313(4)		VJH0510	RF & ANT BOARD	1	
314(4)		VXA3571	POWER SHIELD PLATE (MAIN)	1	
315(4)		VSC2397	POWER SHIELD PLATE (TOP)	1	
316(4)		VSC2237	POWER SHIELD PLATE (BOTTOM)	1	
317(4)		VGH1476	POWER NAME PLATE	1	
318(4)		VGQ1377	TR. HOLDER	1	
319(4)		VMZ1224	INSULATION SHEET	1	
320(4)		VSC2238	HEAT SINK	1	
321(4)		VMP1734	SCREW STOPER ANGLE	1	
322(4)		VMZ1140	BARRIER	1	
323(4)		VMP0442	TOP HOLDER ANGLE (F)	2	
324(4)		VMP1855	TOP HOLDER ANGLE (R)	2	
325(4)		VJF0442	WIRE SADDLE	3	
326(4)		VKU0302	BOTTOM PLATE	1	
327(4)		VHD0059	BOTTOM PLATE SCREW	6	
328(4)		VKC0354	MAIN HING CLIP	2	
329(4)		VHD0418	MAIN SCREW	1	
330(4)		VMC0445	EARTH PLATE	1	
331(4)		VES0491	KEY BOARD PANEL UNIT	1	
332(4)		VYP2587	DOOR PANEL UNIT	1	
333(4)		VGP2211	DOOR SUB PANEL	1	
334(4)		VYC0305	DOOR ALUMINUM UNIT	1	
335(4)		VMC0443	EARTH SPRING	1	
336(4)		VMT0260	CUSHION RUBBER	2	
337(4)		VXU0878	DOOR GEAR UNIT	1	
338(4)		VGL0379	PANEL LIGHT	1	
339(4)		VMG0326	RUBBER CAP	1	
400(5)		VQT2959	OPERATING INSTRUCTIONS	1	<!>
			(ENGLISH/ITALIAN)		
400(5)		VQT2962	OPERATING INSTRUCTIONS	1	<!>
			(GERMAN/GREEK)		
400(5)		VQT2978	OPERATING INSTRUCTIONS	1	<!>
			(SWEDISH/DUTCH)		
400(5)		VQT2979	OPERATING INSTRUCTIONS	1	<!>
			(FRENCH/SPANISH)		
400(5)		VQT2981	OPERATING INSTRUCTIONS	1	<!>
			(DANISH/FINNISH)		
401(5)		VJA0376	DIN RF CABLE	1	
402(5)		VJA0231	AUDIO CABLE	2	
403(5)		VJA0449	AC CORD	1	<!>
404(5)		VQC1315	PROGRAMME SHEET	1	
405(5)		VEQ0910	REMOTE CONTROLLER UNIT	1	BUILD IN DIGITAL
					SCANNER
406(5)		VPK0834	ACCESSORIES PACKING	1	
407(5)		VPN2348	CUSHION (L)	1	
408(5)		VPN2349	CUSHION (R)	1	
409(5)		VPG4545	PACKING	1	
450(6)		VYK2409	TOP COVER UNIT	1	
451(6)		VKM1673	BOTTOM COVER	1	
452(6)		VJR0497	ELECTRODE (COMMON)	1	
453(6)		VJR0507	ELECTRODE (+)	1	
454(6)		VJR0412	ELECTRODE (-)	1	
455(6)		VSP0389	RUBBER CONTACT (A)	1	
456(6)		VSP0390	RUBBER CONTACT (B)	1	
457(6)		VSL0156	LCD	1	
458(6)		VMT0257	CONDUCTIVE RUBBER	2	
459(6)		VKW0878	IR WINDOW	1	
460(6)		VKF1202	BATTERY COVER	1	
461(6)		VGQ1640	SENSOR CAP	1	
462(6)		VKF1201	SLIDE DOOR	1	
			SERVICING FIXTURES & TOOLS		
		VFJ8125H3F	VHS ALIGNMENT TAPE	1	(PAL)
		VFK0335	RETAINING RING REMOVER	1	(3mm/4mm)
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHIT GAUGE	1	
		VFK0328	H-POSITION ADJUSTMENT	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHIT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

4-5. ELECTRICAL REPLACEMENT PARTS LIST (NV-F70EV)

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICROFARADS(uf),P=uuF.
4.The P.C.Board units marked width'█'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03599C	MAIN C.B.A.	1	(NLA)<!>
					INCLUDING THE
					FOLLOWING C.B.A.s
					VEP03627B,VEP04242C,
					VEP04253B,VEP03610A,
					VEP07536B,VPP07537A,
					VEP07538A,VEP06584A,
					VEP02346A.
		VEP03627B	LUMINANCE & CHROMINANCE	1	(NLA)
			PACK C.B.A.		PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP04242C	Hi-Fi AUDIO PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP04253B	INPUT/OUTPUT PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP03610A	TEST SIGNAL PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP07536B	TV DEMODULATOR PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP07537A	DECODER PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP07538A	VPS PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP06584A	SUB SYSTEMCONTROL C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP02346A	SUB SERVO PACK (3) C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN MAIN C.B.A.
		VEP02325B	SERVO PACK C.B.A.	1	(NLA)
					INCLUDING THE
					VEP02334A
		VEP02334A	SUB SERVO PACK C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN SERVO PACK
					C.B.A.
		VEP01353D	POWER C.B.A.	1	(NLA)<!>
		VEP05134B	HEAD AMP C.B.A.	1	(NLA)
		VEP06533E	VR C.B.A.	1	(NLA)
					INCLUDING THE
					VEP00M29A
		VEP00M29A	HEAD PHONE & MIC JACK	1	(NLA)
			C.B.A.		PARTS LIST IS MENTIO-
					NED IN VR C.B.A.
		VEP06537A	JOG/SHUTTLE C.B.A.	1	(NLA)
		VEP07527B	TIMER C.B.A.	1	(NLA)
					INCLUDING THE
					VEP06552A
		VEP06552A	IR RECEIVER C.B.A.	1	(NLA)
					PARTS LIST IS MENTIO-
					NED IN TIMER C.B.A.
		VEP00K88C	EF HEAD C.B.A.	1	(NLA)
		VEP00M86A	FG AMP C.B.A.	1	(NLA)
		VEP00N05A	CYLINDEWR DRIVE C.B.A.	1	(NLA)
		VXA3553	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEK3578	PHOTO TR (S) C.B.A.	1	(NLA)
		-------	PHOTO TR (T) C.B.A.	1	(NLA)
		VEP66079B	REMOTE CONTROLLER C.B.A.	1	(NLA)
F1101		XBA2C16TB0	FUSE 250V 1.6A	1	<!>
F1102		XBA2C12TB0	FUSE 250V 1.2A	1	<!>
		VWJ0357	FLEXIBLE CABLE 15P	1	
		VWJ0358	FLEXIBLE CABLE 18P	1	
	█	VEP03599C	MAIN C.B.A.		
			CAPACITORS		
C251		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C252		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C253		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C301		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C303		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C304		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C305		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C306		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C307		ECUM1H470JCN	CHIP 50V 47P	1	
C308		ECUM1H220JCN	CHIP 50V 22P	1	
C309		ECUX1H4732FN	CHIP 50V 0.047U	1	
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C311,12		ECUM1H180JCN	CHIP 50V 18P	2	
C313		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C314		ECUM1H560JCN	CHIP 50V 56P	1	
C315		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C316		ECUM1H820JCN	CHIP 50V 82P	1	
C317		ECEA1AK470U	E.CAPACITOR 10V 47U	1	
C318		ECUM1H220JCN	CHIP 50V 22P	1	
C319		ECUM1H471KBN	CHIP 50V 470P	1	
C320		ECUM1H270JCN	CHIP 50V 27P	1	
C321		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C322		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C323,24		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C325,26		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C327,28		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C329		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C331		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C332		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C333		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C334		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C335		ECUM1H680JCN	CHIP 50V 68P	1	
C336		ECUM1H101JCN	CHIP 50V 100P	1	
C337		ECUM1H270JCN	CHIP 50V 27P	1	
C338		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C339		ECUM1H220JCN	CHIP 50V 22P	1	
C340		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C341		ECUM1H223KBN	C.CAPACITOR 50V 0.022U	1	
C342		ECUM1H101JCN	CHIP 50V 100P	1	
C343		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C345		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C349		ECUM1H470JCN	CHIP 50V 47P	1	
C351		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C352		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C360		ECQV1H153JZ	P.CAPACITOR 50V 0.015U	1	
C601		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C701		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C702		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C703		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C707		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C708		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C710		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C715-20		ECUM1H103ZFN	CHIP 50V 0.01U	6	
C721		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C722		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C723		ECUM1H180JCN	CHIP 50V 18P	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C727		ECUM1H080DCN	CHIP 50V 80P	1	
C728		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C734		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUM1H030CCN	CHIP 50V 3P	1	
C743		ECUM1H270RSN	CHIP 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUX1H680JPN	CHIP 50V 68P	1	
C746		ECUM1H150JCN	CHIP 50V 15P	1	
C748		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C775		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C781		ECUM1H220JCN	CHIP 50V 22P	1	
C782		ECUM1H060DCN	CHIP 50V 6P	1	
C790		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C801,02		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C803		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C804,05		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C806		ECUM1H471KBN	CHIP 50V 470P	1	
C807,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C810		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C811		ECUM1H180JCN	CHIP 50V 18P	1	
C812		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C813		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C814		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C815		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C816		ECUM1E104ZFN	CHIP 25V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C817		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	1	
C818		ECUM1H471KBN	CHIP 50V 470P	1	
C819		ECUM1H820JCN	CHIP 50V 82P	1	
C820		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C821		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C823		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C824		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C825		ECUM1H101JCN	CHIP 50V 100P	1	
C826		ECEA1AU221	E.CAPACITOR 10V 220U	1	
C827		ECUM1H050DCN	CHIP 50V 5P	1	
C828		ECUM1H102KBN	CHIP 50V 1000P	1	
C829		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C831,32		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C1001		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C1003		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C1004		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1005		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C1006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C1007,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C1009		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C1010		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C1011		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C1012		ECEA1HU470	E.CAPACITOR 50V 47U	1	
C3001		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3004		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3005		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C3006		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3007		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3008		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3009		ECUM1H560JCN	CHIP 50V 56P	1	
C3010		ECUM1H151JCN	CHIP 50V 150P	1	
C3012		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C3013		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3014		ECUM1H220JCN	CHIP 50V 22P	1	
C3016		ECUM1H220JCN	CHIP 50V 22P	1	
C3017		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3018		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C3019		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3020		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3021		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3022		ECUM1H220JCN	CHIP 50V 22P	1	
C3023		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3024		ECUM1H680JCN	CHIP 50V 68P	1	
C3025		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3026		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3028		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3029		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3030		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3031		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3032		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3033		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3034		ECUM1C224ZFN	CHIP 16V 0.22U	1	
C3040		ECUM1H180JCN	CHIP 50V 18P	1	
C3047		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3048		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3049		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3050		ECUM1H180JCN	CHIP 50V 18P	1	
C3051		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3054		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C3635-37		ECEA1CK100	E.CAPACITOR 16V 10U	3	
C3638,39		ECUM1H332KBN	CHIP 50V 3300P	2	
C3901-03		ECEA1CK220	E.CAPACITOR 16V 22U	3	
C3904		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3905		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3906		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3908		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4001		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECUM1H102KBN	CHIP 50V 1000P	1	
C4004		ECQP1222JZ	P.CAPACITOR 0.0022U	1	
C4005		ECCD2H121J	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330U	E.CAPACITOR 16V 33U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4011		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C4014		ECUM1H182KBN	CHIP 50V 1800P	1	
C4015		ECEA16M10R	ELECTROLYTIC 16V 10U	1	
C4016		ECUM1H102KBN	CHIP 50V 1000P	1	
C4017		ECEA10M47	E.CAPACITOR 10V 47U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	CHIP 50V 1000P	1	
C4021		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4022		ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4023		ECUM1H221JN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JCN	CHIP 50V 100P	2	
C4026		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4027		ECUM1H102JN	CHIP 50V 1000P	1	
C4029		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C4101		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4103		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4104		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4106		ECEA1APK470	E.CAPACITOR 10V 47U	1	
C4107		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4108		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C4110,11		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C4112		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C4114,15		ECUX1H473ZFN	CHIP 50V 0.047U	2	
C4118		ECUM1H104ZFN	CHIP 50V 0.1U	1	
C4119		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4120		ECUM1H103KBN	CHIP 50V 0.01U	1	
C4121		ECUM1H223ZFN	CHIP 50V 0.022U	1	
C4122		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4123		ECUM1H221KBN	C.CAPACITOR CH 50V 220P	1	
C4124		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4125		ECUM1H102KBN	CHIP 50V 1000P	1	
C4126		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4127-30		ECKD1H103ZF	C.CAPACITOR 50V 0.01U	4	
C4501		ECEA1HB24R7	E.CAPACITOR 50V 4.7U	1	
C4502		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4503		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4504		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4505		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4506		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4507		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4508		VCEA1EAE4R7J	E.CAPACITOR 25V 4.7U	1	
C4509		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4510		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4511		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4512		ECUM1H102JCN	CHIP 50V 1000P	1	
C4513,14		ECUM1H102JN	CHIP 50V 1000P	2	
C4515		ECEA1HBZ3R3	E.CAPACITOR 50V 3.3U	1	
C4516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4517		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4518,19		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C4520		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4522		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4525		ECEA1CPZ220	E.CAPACITOR 16V 22U	1	
C4526		VCEA1CAH101	E.CAPACITOR 16V 100U	1	
C4527		VCEA1AAE101	E.CAPACITOR 10V 100U	1	
C4528		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C4529		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4530		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4531		ECEA1EK3R3	E.CAPACITOR 25V 3.3U	1	
C4532		ECEA1CPZ471	E.CAPACITOR 16V 470U	1	
C4533		ECEA1CPZ221	E.CAPACITOR 16V 220U	1	
C4534		VCEA1AAH101	E.CAPACITOR 10V 100U	1	
C4535		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4536		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C4537		ECUM1H331JCN	CHIP 50V 330P	1	
C4538		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4539		ECQB1H223JZ	P.CAPACITOR 50V 0.022U	1	
C4540-42		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C4551		ECEA1HB24R7	E.CAPACITOR 50V 4.7U	1	
C4552		ECEA1HK010	E.CAPACITOR 50V 1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4553		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4554		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4555		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4556		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4557		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4558		VCEA1EAE4R7J	E.CAPACITOR 25V 4.7U	1	
C4559		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4560		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4561		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4562		ECUM1H102JCN	CHIP 50V 1000P	1	
C4563,64		ECUM1H102JN	CHIP 50V 1000P	2	
C4565		ECEA1HBZ3R3	E.CAPACITOR 50V 3.3U	1	
C4566		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4567		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4568,69		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C4570		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4572		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4574,75		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C4901,02		ECUM1H101KBN	C.CAPACITOR CH 50V 100P	2	
C4903,04		ECUM1H222KBN	CHIP 50V 2200P	2	
C4909,10		ECUM1H101KN	CHIP 50V 100P	2	
C4915		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C4916		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4917,18		VCEA1AAC101	E.CAPACITOR 10V 100U	2	
C4919		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C4920		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C4921		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4922		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C4923		ECQB1H222JH	P.CAPACITOR 50V 2200P	1	
C4924,25		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	2	
C4926		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C4927		ECEA1CPZ101	E.CAPACITOR 16V 100U	1	
C4928		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C4929		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C6001		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6002		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6003		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6004		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C6005		ECUM1H151KBN	C.CAPACITOR 50V 150P	1	
C6006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C6007		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6008		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C6010,11		ECUM1H102KBN	CHIP 50V 1000P	2	
C6012		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C6013,14		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C6015		ECUM1H102ZFN	C.CAPACITOR 50V 1000P	1	
C6016		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6017		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6018,19		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C6020-23		ECUM1H171KBN	C.CAPACITOR CH 50V 170P	4	
C6024-28		ECUM1H221KBN	C.CAPACITOR CH 50V 220P	5	
C6029		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C6030		ECEA1CU222	E.CAPACITOR 16V 2200U	1	
C6033		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6034		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C6037,38		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C6039		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6041		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6043		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7302		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7303		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C7304		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7305		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C7306		ECQB1H102KH	P.CAPACITOR 50V 1000P	1	
C7307		ECQB1H822KH	P.CAPACITOR 50V 8200P	1	
C7308		ECQB1H102KH	P.CAPACITOR 50V 1000P	1	
C7309		ECQB1H152JH	P.CAPACITOR 50V 1500P	1	
C7310		ECEA16Z10	E.CAPACITOR 16V 10U	1	
C7311		ECEA50ZR47	E.CAPACITOR 50V 0.47U	1	
C7312		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7313		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7314		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7315		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7316		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7317		ECEA1CK101	E.CAPACITOR 16V 100U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7318		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7319		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7320,21		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C7322		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C7323,24		ECQB1H223JH	P.CAPACITOR 50V 0.022U	2	
C7325		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7331		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C7332,33		ECUM1H102KBN	CHIP 50V 1000P	2	
C7334		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7335		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7336		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7337		ECUX1H680JCN	CHIP 50V 68P	1	
C7338		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7339		ECQB1H103KH	P.CAPACITOR 50V 0.01U	1	
C7340		ECUM1H390JPN	C.CAPACITOR CH 50V 39P	1	
C7341		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7342		ECQB1H183JH	P.CAPACITOR 50V 0.018U	1	
C7343		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7344		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7345		ECQB1H103KH	P.CAPACITOR 50V 0.01U	1	
C7346		ECUM1H390JPN	C.CAPACITOR CH 50V 39P	1	
C7347		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7348		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C7668		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7672		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C7801		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	
C7802		ECQB1H471JH	P.CAPACITOR 50V 470P	1	
C7803		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C7804		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7805		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7806		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C7815		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C7816		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C7851		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7852		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C7853,54		ECCF1H330JC	C.CAPACITOR 50V 33P	2	
C7855,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7860		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
D251-53		MA165	DIODE	2	
D301		MA4091	DIODE	1	
D601		MA165	DIODE	1	
D710		MA3100L	DIODE	1	
D773		11ES1	DIODE	1	
D805		MA165	DIODE	1	
D1001		MA723	DIODE	1	
D1003,04		MA723	DIODE	2	
D1005		MA165	DIODE	1	
D1007		MA154WA	DIODE	1	
D1008		MA165	DIODE	1	
D1010,11		MA165	DIODE	2	
D2001,02		MA165	DIODE	2	
D3002		MA165	DIODE	1	
D3004		MA165	DIODE	1	
D3006		MA723	DIODE	1	
D3009,10		MA165	DIODE	2	
D3011		MA27W	DIODE	1	
D3012		MA165	DIODE	1	
D3608		MA165	DIODE	1	
D4003		MA165	DIODE	1	
D4101		MA165	DIODE	1	
D4501		MA151WK	DIODE	1	
D4901		MA151WA	DIODE	1	
D4903,04		MA165	DIODE	2	
D4905		MA4062L	DIODE	1	
D4906-09		MA165	DIODE	4	
D6001		MA154WK	DIODE	1	
D6003-05		MA165	DIODE	3	
D6007		MA154WA	DIODE	1	
D6009-14		MA165	DIODE	6	
D6016		MA165	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6017		MA4100M	DIODE	1	
D6019		MA154WA	DIODE	1	
D6021		MA156	DIODE	1	
D6024		MA4051L	DIODE	1	
D6025		AK04V2	DIODE	1	
D6026		MA165	DIODE	1	
D6027		MA4075M	DIODE	1	
D6029		MA154WK	DIODE	1	
D6032		MA165	DIODE	1	
D6033		MA723	DIODE	1	
D7302		MA151A	DIODE	1	
D7303		MA28WA	DIODE	1	
D7672		MA3300H	DIODE	1	
D7851		MA165	DIODE	1	
DL801		VLD0089	DELAY	1	
DL802		VLD0147	DELAY	1	
FL301		ELB4M022	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0727	FILTER	1	
FL801		VLF0299	FILTER	1	
FL3601		VLF0413	FILTER	1	
FL4501,02		VLF0406	FILTER	2	
FL4503		VLF0697	FILTER	1	
IC251		LM393P	IC	1	
IC301		VEFH03D	HIC	1	
IC302		AN3495K	IC	1	
IC303		MSM6965-3RS	IC	1	
IC701		M51366SP	IC	1	
IC801		VEFH04F	IC	1	
IC3001		AN3396	IC	1	
IC3602		BA7004	IC	1	
IC3901		TA7348P	IC	1	
IC3902		UPD4001BC	IC	1	
IC4001		BA7766AS	IC	1	
IC4101		RC4560DD	IC	1	
IC4501		BA7700K1	IC	1	
IC4502		UPC78L05J	IC	1	
IC4901		MC14052BCP	IC	1	
IC4902		RC4560DD	IC	1	
IC4903		M5201L	IC	1	
IC4904		AN6558	IC	1	
IC4905		UPC78L06J	IC	1	
IC6001		MN188166VHI	IC	1	
IC6002		MN1280R	IC	1	
IC6003		MC14011BCP	IC	1	
IC6004		LM339N	IC	1	
IC6005		AN6609	IC	1	
IC6006		LM393P	IC	1	
IC6007		MC14519BCP	IC	1	
IC7301		TDA3803A	IC	1	
IC7302,03		AN5215	IC	2	
IC7801		SAA4700	IC	1	
IC7851		MN158413VHW	IC	1	
IC7852		MN1280T	IC	1	
J701		VJR0231	PACK PIN	1	
J702,03		VJR0406	PACK PIN	2	
J704		VJR0231	PACK PIN	1	
J7301,02		VJR0189	PACK PIN	2	
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F220K	COIL 22UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F121K	COIL 120UH	1	
L305		VLQEL05F680K	COIL 68UH	1	
L306		VLQEL05F101K	COIL 100UH	1	
L307		VLQEL05F151K	COIL 150UH	1	
L308		VLQEL05F270K	COIL 27UH	1	
L309,10		VLQEL05F101K	COIL 100UH	2	
L701,02		ELESP680KA	COIL 68UH	2	
L711		ELQTR68XB	COIL 0.68UH	1	
L712		VLQ0305J1R2	COIL 1.2UH	1	
L714		VLQ0305J1R2	COIL 1.2UH	1	
L715		VLQ0213K680	COIL 68UH	1	
L716		ELESP560KA	COIL 56H	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP120KA	COIL 12UH	1	
L781		ELESP680KA	COIL 68UH	1	
L801		VLQEL05F101K	COIL 100UH	1	
L802-04		VLQEL05F150K	COIL 15UH	3	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L808		VLQEL05F470K	COIL 47UH	1	
L809		VLQEL05F331K	COIL 330UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F470K	COIL 47UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L3001,02		VLQEL05F101K	COIL 100UH	2	
L3003		VLQEL05F120K	COIL 12UH	1	
L3005		VLQEL05F101K	COIL 100UH	1	
L3006		VLQEL05F6R8K	COIL 6.8UH	1	
L3007		VLQEL05F270J	COIL 27UH	1	
L3008		VLQEL05F151K	COIL 150UH	1	
L3009,10		VLQEL05F101K	COIL 100UH	2	
L3013		VLQEL05F820K	COIL 82UH	1	
L3020		VLQEL05F5R6K	COIL 5.6UH	1	
L3611,12		VLQEL05F101K	COIL 100UH	2	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L4102		VLQEL05F1R0K	COIL 1UH	1	
L4104,05		VLQEL05F101K	COIL 100UH	2	
L4501,02		VLQEL05F101K	COIL 100UH	2	
L7301		ELESP102KA	COIL 1000UH	1	
L7302		ELESP680KA	COIL 68UH	1	
L7304		VTQ0014	COIL	1	
P1101		VJP2593	CONNECTOR	1	
P2001		VJP1242T	CONNECTOR(MALE) 2P	1	
P2002		VJP1141	CONNECTOR(MALE) 2P	1	
P3001		VJP1237T	CONNECTOR(MALE) 10P	1	
P4001		VJP1231T	CONNECTOR(MALE) 4P	1	
P4002		VJP1236T	CONNECTOR(MALE) 9P	1	
P4003		VJP1234T	CONNECTOR(MALE) 7P	1	
P4004		VJP1229T	CONNECTOR(MALE) 2P	1	
P4901		VJP1231T	CONNECTOR(MALE) 4P	1	
P6001		VJS1663	CONNECTOR	1	
P6002		VJS2571A004	CONNECTOR	1	
P6003		VJP1239T	CONNECTOR	1	
P7401		VJS2571A013	CONNECTOR	1	
P7402		VJS2571A012	CONNECTOR	1	
P7403		VJS2571A011	CONNECTOR	1	
P7404		VJS2571A008	CONNECTOR	1	
PK1		VJR0189	PACK PIN	1	
PK251		VJR0279	PACK PIN	1	
PK4501-03		VJR0290	PACK PIN	3	
Q301		2SB709	TRANSISTOR CHIP	1	
Q302,03		2SC2295	TRANSISTOR	2	
Q304		2SD601	TRANSISTOR CHIP	1	
Q601		2SD636	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q703		2SD601	TRANSISTOR	1	(S,T)
Q710		2SC2377	TRANSISTOR	1	(C,D)
Q712		2SD638	TRANSISTOR	1	
Q771		2SD601	TRANSISTOR CHIP	1	
Q801		2SD601	TRANSISTOR CHIP	1	
Q802		2SD2295	TRANSISTOR	1	
Q804		2SB709	TRANSISTOR CHIP	1	
Q1001		2SC4024LF	TRANSISTOR	1	
Q1002		2SD601	TRANSISTOR CHIP	1	
Q1003		2SD601A	TRANSISTOR	1	
Q1004		2SD1330	TRANSISTOR	1	
Q1005		2SD638	TRANSISTOR	1	(R,S)
Q3001		2SA1309	TRANSISTOR	1	
Q3002		2SC3311	TRANSISTOR	1	
Q3003-05		2SC2295	TRANSISTOR	3	
Q3006		2SC3311	TRANSISTOR	1	
Q3007		2SD601	TRANSISTOR CHIP	1	
Q3009,10		2SD601	TRANSISTOR CHIP	2	
Q3011		2SB709	TRANSISTOR CHIP	1	
Q3013		2SD601	TRANSISTOR CHIP	1	
Q3610		2SD601	TRANSISTOR	1	
Q3901		2SB709	TRANSISTOR CHIP	1	
Q4001		2SD1992A	TRANSISTOR	1	
Q4103		2SD1328	TRANSISTOR	1	
Q4501		2SD601	TRANSISTOR CHIP	1	
Q4502,03		2SD1306	TRANSISTOR	2	
Q4504		2SD601	TRANSISTOR CHIP	1	
Q4901		2SD601	TRANSISTOR CHIP	1	
Q4902		2SB710A	TRANSISTOR	1	(T,W)
Q6002-04		2SA1512	TRANSISTOR	3	
Q6006		2SD893	TRANSISTOR	1	
Q6007		2SD592	TRANSISTOR	1	
Q6008		2SC3311	TRANSISTOR	1	
Q6011		2SD1856	TRANSISTOR	1	
Q6012		2SC3311	TRANSISTOR	1	
Q6013-15		2SD601	TRANSISTOR CHIP	3	
Q7301		2SD601	TRANSISTOR	1	(S,T)
Q7302		2SD1328	TRANSISTOR	1	
Q7303		2SD1328	TRANSISTOR	1	
Q7304,05		2SD601	TRANSISTOR CHIP	2	
Q7306		2SC2404	TRANSISTOR CHIP	1	(C,D)
Q7307		2SD1328	TRANSISTOR	1	
QR251-53		UN2213	TRANSISTOR-RESISTOR	3	
QR301-03		UN2212	TRANSISTOR-RESISTOR	3	
QR701,02		UN2213	TRANSISTOR-RESISTOR	2	
QR711,12		UN2212	TRANSISTOR-RESISTOR	2	
QR801		UN2212	TRANSISTOR-RESISTOR	1	
QR1001		UN2211	TRANSISTOR-RESISTOR	1	
QR1002		UN2213	TRANSISTOR-RESISTOR	1	
QR1005		UN2213	TRANSISTOR-RESISTOR	1	
QR1006		UN2211	TRANSISTOR-RESISTOR	1	
QR1007		UN4211	IC	1	
QR2001		UN2211	TRANSISTOR-RESISTOR	1	
QR3001		UN2212	TRANSISTOR-RESISTOR	1	
QR3002		UN2214	TRANSISTOR-RESISTOR	1	
QR3003		UN2111	TRANSISTOR-RESISTOR	1	
QR3004		UN2213	TRANSISTOR-RESISTOR	1	
QR3005		UN2111	TRANSISTOR-RESISTOR	1	
QR3006,07		DTC363EK	TRANSISTOR-RESISTOR	2	
QR3008		UN2212	TRANSISTOR-RESISTOR	1	
QR3009-11		UN2213	TRANSISTOR-RESISTOR	3	
QR3012		DTC363EK	TRANSISTOR-RESISTOR	1	
QR3013		UN2213	TRANSISTOR-RESISTOR	1	
QR4001		UN2213	TRANSISTOR-RESISTOR	1	
QR4101		UN2213	TRANSISTOR-RESISTOR	1	
QR4102		UN2113	TRANSISTOR-RESISTOR	1	
QR4103,04		UN2112	TRANSISTOR-RESISTOR	2	
QR4105		UN2213	TRANSISTOR-RESISTOR	1	
QR4501,02		UN2213	TRANSISTOR-RESISTOR	2	
QR4901		UN2213	TRANSISTOR-RESISTOR	1	
QR6001		UN2212	TRANSISTOR-RESISTOR	1	
QR6003-04		UN2213	TRANSISTOR-RESISTOR	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR6005-09		UN2211	TRANSISTOR-RESISTOR	5	
QR6010		UN2213	TRANSISTOR-RESISTOR	1	
QR6011		UN2211	TRANSISTOR-RESISTOR	1	
QR6013		UN2111	TRANSISTOR-RESISTOR	1	
QR6014		UN2113	TRANSISTOR-RESISTOR	1	
QR6015-17		UN2213	TRANSISTOR-RESISTOR	3	
QR6018		UN2113	TRANSISTOR-RESISTOR	1	
QR6019,20		UN2213	TRANSISTOR-RESISTOR	2	
QR6021		UN2113	TRANSISTOR-RESISTOR	1	
QR6022		UN2111	TRANSISTOR-RESISTOR	1	
QR6024		UN2113	TRANSISTOR-RESISTOR	1	
QR6025		UN2212	TRANSISTOR-RESISTOR	1	
QR6027		UN2213	TRANSISTOR-RESISTOR	1	
QR7301,02		UN2214	TRANSISTOR-RESISTOR	2	
QR7312-14		UN2211	TRANSISTOR-RESISTOR	3	
QR7851		UN1211	TRANSISTOR-RESISTOR	1	
QR7852		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R251		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R252		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R253		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R254		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R255		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R256		ERJ6GEYJ154	CHIP 1/10W 150K	1	
R257		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R258		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R259		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R260		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R261,62		ERJ6GEYJ102	CHIP 1/10W 1K	2	
R265		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R301		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R302		ERJ6GMYJ391	CHIP 1/10W 390	1	
R303		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R304		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R305		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R306		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R307		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R308		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R309		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R310		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R311,12		ERJ6GMYJ392	CHIP 1/10W 3.9K	2	
R313		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R314		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R315		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R317		ERJ6GMYJ471	CHIP 1/10W 470	1	
R318		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R319		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R320		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R325		ERJ6GMYJ151	CHIP 1/10W 150	1	
R326		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R327		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R328		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R329		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R330		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R331		ERJ6GMYJ561	CHIP 1/10W 560	1	
R332		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R334,35		ERJ6GMYJ102	CHIP 1/10W 1K	2	
R338		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R601		ERDS2TJ683	C.RESISTOR 1/4W 68K	1	
R602		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R712		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R713		ERJ6GEYJ681	CHIP 1/10W 680	1	
R714		ERD2FCG330	C.RESISTOR 2W 33	1	<!>
R715		ERJ6GEYJ271	CHIP 1/10W 270	1	
R716		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	
R717		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R718		ERJ6GEYJ754	CHIP 1/10W 750K	1	
R719,20		ERJ6GEYJ682	CHIP 1/10W 6.8K	2	
R721		ERJ6GEYJ272	CHIP 1/10W 2.7K	1	
R722		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R723		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R724		ERDS2TJ101	C.RESISTOR 1/4W 100	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R725		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R726		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R727		ERJ6GEYJ471	CHIP 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R737		ERJ6GEYJ274	CHIP 1/10W 270K	1	
R738		ERJ6GEYJ334	CHIP 1/10W 330K	1	
R740		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R741		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R743		ERJ6GEYJ470	CHIP 1/10W 47	1	
R744		ERJ6GEYJ821	CHIP 1/10W 820	1	
R745		ERJ6GEYJ331	CHIP 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R747		ERJ6GEYJ471	CHIP 1/10W 470	1	
R750		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R759		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R772		ERJ6GEYJ271	CHIP 1/10W 270	1	
R773		ERJ6GEYJ124	CHIP 1/10W 120K	1	
R774		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R781		ERJ6GEYJ271	CHIP 1/10W 270	1	
R782		ERJ6GEYJ821	CHIP 1/10W 820	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R796		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R801		ERJ6GMYJ271	CHIP 1/10W 270	1	
R802		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R803,04		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R805,06		ERJ6GMYJ471	CHIP 1/10W 470	2	
R807		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R808		ERJ6GMYJ681	CHIP 1/10W 680	1	
R809		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R810		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R815		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R816		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R817,18		ERJ6GMYJ102	CHIP 1/10W 1K	2	
R819		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R820		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R821		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R822		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R823		ERJ6GMYJ271	CHIP 1/10W 270	1	
R824		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R825		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R827		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R828		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R1002		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R1003		ERJ6GMYJ181	CHIP 1/10W 180	1	
R1004		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R1005		ERDS1TJ822	C.RESISTOR 1/2W 8.2K	1	
R1006		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R1007		ERJ6GMYG912	M.RESISTOR CH1/10W 9.1K	1	
R1008		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R1009		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R1010		ERJ6GMYG682	CHIP 1/10W 6.8K	1	
R1011		ERJ6GMYJ561	CHIP 1/10W 560	1	
R1012		ERG2ANJ681U	M.RESISTOR 2W 680	1	
R1013		ERG2ANJ821U	M.RESISTOR 2W 820	1	
R1014		ERX1SJ1R2	M.RESISTOR 1W 1.2	1	
R2001		ERJ6GMYJ271	CHIP 1/10W 270	1	
R2002		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R2005		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R2006		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R2007		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R3001		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3002		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3003		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3004		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R3005		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R3006		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R3007,08		ERJ6GMYJ561	CHIP 1/10W 560	2	
R3009		ERJ6GMYJ391	CHIP 1/10W 390	1	
R3010		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3011		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3012		ERJ6GMYJ821	CHIP 1/10W 820	1	
R3014		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3015		ERJ6GMYJ561	CHIP 1/10W 560	1	
R3017		ERJ6GMYJ561	CHIP 1/10W 560	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3019		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R3020		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R3021		ERJ6GMYJ681	CHIP 1/10W 680	1	
R3022		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3023		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R3024		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3025,26		ERJ6GMYJ222	CHIP 1/10W 2.2K	2	
R3027		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3028		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R3030		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R3031		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3032		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R3033		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R3037		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R3038		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R3043		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3047		ERJ6GMYJ821	CHIP 1/10W 820	1	
R3048		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3049		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3054		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R3055		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3056		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R3057		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3060		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3632		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R3633		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R3634,35		ERJ6GEYJ152	CHIP 1/10W 1.5K	2	
R3636		ERJ6GEYJ561	CHIP 1/10W 560	1	
R3901,02		ERJ6GEYJ750	CHIP 1/10W 75	2	
R3903,04		ERJ6GEYJ472	CHIP 1/10W 4.7K	2	
R3905,06		ERJ6GEYJ750	CHIP 1/10W 75	2	
R3907		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R3908		ERJ6GEYJ750	CHIP 1/10W 75	1	
R3909,10		ERJ6GEYJ684	CHIP 1/10W 680K	2	
R3911		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R3912		ERJ6GEYJ750	CHIP 1/10W 75	1	
R3913		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R3916		ERJ6GEYJ750	CHIP 1/10W 75	1	
R4001		ERJ6GMYJ100	CHIP 1/10W 10	1	
R4002		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4003		ERJ6GMYJ203	CHIP 1/10W 2K	1	
R4004,05		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R4007		ERJ6GMYJ221	CHIP 1/10W 220	1	
R4008		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R4009		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4010		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R4012		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4013		ERJ6GMYJ394	M.RESISTOR CH1/10W 390K	1	
R4014		ERJ6GMYG133	M.RESISTOR CH1/10W 13K	1	
R4015		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R4016		ERJ6GMYK225	M.RESISTOR CH1/10W 2.2M	1	
R4017		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R4018		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4019		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R4020		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R4021		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R4022		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4023		ERJ6GMYG473	CHIP 1/10W 47K	1	
R4024,25		ERJ6GMYG104	CHIP 1/10W 100K	2	
R4026		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R4027		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4029		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R4030		ERJ6GMYJ512	M.RESISTOR CH1/10W 5.1K	1	
R4031		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4035		ERDS2TJ563	C.RESISTOR 1/4W 56K	1	
R4101		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4104		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4105,06		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R4107		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4108		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4109		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4110		EROS2CKG2403	M.RESISTOR 1/4W 240K	1	
R4111		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4112		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4113,14		ERJ6GMYJ563	CHIP 1/10W 56K	2	
R4115		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R4116		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R4117		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R4118		ERJ6GMYJ471	CHIP 1/10W 470	1	
R4121		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4501		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4502		ERJ6GMYG681	M.RESISTOR CH1/10W 680	1	
R4503		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4504		VRE0034E112	M.RESISTOR 1/4W 1.1K	1	
R4505		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4506		ERJ6GMYG183	M.RESISTOR CH1/10W 18K	1	
R4507		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R4508		ERJ6GMYG104	CHIP 1/10W 100K	1	
R4510		ERJ6GMYG561	M.RESISTOR CH1/10W 560	1	
R4511		ERJ6GMYG303	M.RESISTOR CH1/10W 30K	1	
R4512		VRE0034E133	M.RESISTOR 1/4W 13K	1	
R4513		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4514		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4515		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4516		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R4517		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R4520		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4521		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4522		ERJ6GMYJ225	M.RESISTOR CH1/10W 2.2M	1	
R4523		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4525,26		ERJ6GMYJ152	CHIP 1/10W 1.5K	2	
R4527		VRE0034E104	M.RESISTOR 1/4W 100K	1	
R4528		VRE0034E393	M.RESISTOR 1/4W 39K	1	
R4529		ERJ6GEYG123	CHIP 1/10W 12K	1	
R4530		ERJ6GMYJ334	CHIP 1/10W 330K	1	
R4533		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4534		VRE0034E152	M.RESISTOR 1/4W 1500	1	
R4535		ERJ6GMYJ104	C.RESISTOR 1/4W 100K	1	
R4536		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R4537		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4539		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4540		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R4541		ERJ6GMYJ821	CHIP 1/10W 820	1	
R4551		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4552		ERJ6GMYG681	M.RESISTOR CH1/10W 680	1	
R4553		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R4554		VRE0034E112	M.RESISTOR 1/4W 1.1K	1	
R4555		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4556		ERJ6GMYG183	M.RESISTOR CH1/10W 18K	1	
R4557		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R4558		ERJ6GMYG104	CHIP 1/10W 100K	1	
R4560		ERJ6GMYG561	M.RESISTOR CH1/10W 560	1	
R4561		ERJ6GMYG303	M.RESISTOR CH1/10W 30K	1	
R4562		VRE0034E912	M.RESISTOR 1/4W 9.1K	1	
R4563		VRE0034E49B	M.RESISTOR 1/4W 49	1	
R4564		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4565		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4566		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R4567		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R4570,71		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R4573		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R4574		ERJ6GMYJ560	M.RESISTOR CH1/10W 56	1	
R4575		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R4576		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4577		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R4901,02		ERJ6GEYJ222	CHIP 1/10W 2.2K	2	
R4903		ERJ6GEYJ221	CHIP 1/10W 220	1	
R4906,07		ERJ6GEYJ221	CHIP 1/10W 220	2	
R4908		ERJ6GEYJ471	CHIP 1/10W 470	1	
R4909		ERJ6GEYJ221	CHIP 1/10W 220	1	
R4910		ERJ6GEYJ471	CHIP 1/10W 470	1	
R4911,12		ERJ6GEYJ222	CHIP 1/10W 2.2K	2	
R4915,16		ERJ6GEYJ393	CHIP 1/10W 39K	2	
R4917		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	1	
R4918		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4919		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	1	
R4920,21		ERJ6GEYJ474	CHIP 1/10W 470K	2	
R4922,23		ERJ6GEYJ393	CHIP 1/10W 39K	2	
R4924		ERDS1FYJ222	C.RESISTOR 1/2W 2.2K	1	
R4925,26		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4927		ERJ6GEYJ153	CHIP 1/10W 15K	1	
R4928		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4929		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R4930,31		ERJ6GEYJ684	CHIP 1/10W 680K	2	
R4932		ERJ6GEYG392	M.RESISTOR CH1/10W 3.9K	1	
R4933,34		ERJ6GEYG222	CHIP 1/10W 2.2K	2	
R4935		ERJ6GEYG392	M.RESISTOR CH1/10W 3.9K	1	
R4936,37		ERJ6GEYJ474	CHIP 1/10W 470K	2	
R4938,39		ERJ6GEYJ124	CHIP 1/10W 120K	2	
R4940,41		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R4942		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4943		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R4944-46		ERJ6GEYJ473	CHIP 1/10W 47K	3	
R4947		ERJ6GEYJ123	CHIP 1/10W 12K	1	
R4948,49		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R4950		ERJ6GEYJ123	CHIP 1/10W 12K	1	
R4951		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4952		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4953		ERJ6GEYG222	CHIP 1/10W 2.2K	1	
R4954		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4955		ERJ6GEYG222	CHIP 1/10W 2.2K	1	
R4956		ERJ6GEYJ244	M.RESISTOR CH1/10W 240K	1	
R4957		ERJ6GEYJ334	CHIP 1/10W 330K	1	
R6001		ERJ6GMYJ471	CHIP 1/10W 470	1	
R6002		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R6005		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6006,07		ERJ6GMYJ332	CHIP 1/10W 3.3K	2	
R6008		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6009		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6010,11		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R6016		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6017		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6018		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6019		ERJ6GMYJ121	M.RESISTOR CH1/10W 120	1	
R6020		ERG2SJ180	M.RESISTOR 2W 18	1	
R6021		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6023		ERD2FCVG220	C.RESISTOR 2W 22	1	
R6028		ERJ6GMYJ471	CHIP 1/10W 470	1	
R6029		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6030		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6031		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R6032		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6033		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6034		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6035		ERSB30JR90	M.RESISTOR 1/4W 0.9	1	
R6036		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6038		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6039,40		ERJ6GMYJ182	CHIP 1/10W 1.8K	2	
R6041		ERJ6GMYJ561	CHIP 1/10W 560	1	
R6042		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6043,44		ERJ6GMYJ223	CHIP 1/10W 22K	2	
R6045,46		ERJ6GMYJ473	CHIP 1/10W 47K	2	
R6047		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6048-50		ERJ6GMYJ103	CHIP 1/10W 10K	3	
R6051,52		ERJ6GMYJ564	M.RESISTOR CH1/10W 560K	2	
R6054		ERJ6GMYK395	M.RESISTOR CH1/10W 3.9M	1	
R6055		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6056		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R6057		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R6058		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6059		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R6060		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6061		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6062,63		ERJ6GMYJ564	M.RESISTOR CH1/10W 560K	2	
R6064-66		ERJ6GMYJ683	CHIP 1/10W 68K	3	
R6067		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R6068		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6069		ERJ6GMYK395	M.RESISTOR CH1/10W 3.9M	1	
R6071		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6072		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6073-75		ERJ6GMYJ333	CHIP 1/10W 33K	3	
R6076		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6077,78		ERJ6GMYJ101	CHIP 1/10W 100	2	
R6079		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6080		ERJ6GMYJ681	CHIP 1/10W 680	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6081,82		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R6083		ERJ6GMYJ681	CHIP 1/10W 680	1	
R6084		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6085		ERJ6GMYJ184	CHIP 1/10W 180K	1	
R6087		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6088		ERJ6GMYJ184	CHIP 1/10W 180K	1	
R6089		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R6090		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6091		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R6092		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R6093		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R6094-98		ERJ6GMYJ271	CHIP 1/10W 270	5	
R6099,00		ERJ6GMYJ222	CHIP 1/10W 2.2K	2	
R6101		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R6102		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6103		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6104		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6105		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6106		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6107,08		ERJ6GMYJ472	CHIP 1/10W 4.7K	2	
R6109		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6110		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6111		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6112		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6113		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6114		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R6115		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6119-22		ERJ6GMYJ103	CHIP 1/10W 10K	4	
R6123		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R7302		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R7303		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R7304		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R7305		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R7306		ERJ6GEYJ471	CHIP 1/10W 470	1	
R7307		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7308		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R7309		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R7310		ERJ6GEYJ474	CHIP 1/10W 470K	1	
R7311		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7312		ERJ6GEYJ563	CHIP 1/10W 56K	1	
R7313		ERJ6GEYJ824	CHIP 1/10W 820K	1	
R7314,15		ERJ6GEYJ224	CHIP 1/10W 220K	2	
R7316		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7317		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R7318		ERJ6GEYJ153	CHIP 1/10W 15K	1	
R7321,22		ERJ6GEYJ102	CHIP 1/10W 1K	2	
R7323		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7324		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R7325		ERJ6GEYJ391	CHIP 1/10W 390	1	
R7329		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7330		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7331		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7333		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7334-37		ERJ6GEYJ471	CHIP 1/10W 470	4	
R7338		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R7339		ERJ6GEYJ330	CHIP 1/10W 33	1	
R7340		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	
R7341		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7342		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7343,44		ERJ6GEYJ471	CHIP 1/10W 470	2	
R7345		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R7346		ERJ6GEYJ221	CHIP 1/10W 220	1	
R7347		ERJ6GEYJ681	CHIP 1/10W 680	1	
R7348		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R7349		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7350		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R7351		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7656		ERJ6GEYJ221	CHIP 1/10W 220	1	
R7676		ERG1SJ332	M.RESISTOR 1W 3.3K	1	
R7801		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R7802		EROS2CKG7502	M.RESISTOR 1/4W 75K	1	
R7803,04		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R7805		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R7806		EROS2CKG3601	M.RESISTOR 1/4W 3.6K	1	
R7851		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7852		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R7860		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
SW4902		VSS0236	SWITCH	1	
T703		EIV5EC013A	IFT	1	
T704		EIV5EC006A1	IFT	1	
T710		EULBEF023	IFT	1	
T4001		EIQ7QF013Q	IFT	1	
T7301		EIR7QG001B	IFT	1	
T7302,03		EIL7QH011Q	IFT	2	
T7304		EIS5EC007A	IFT	1	
T7305		EIS5EC005A	IFT	1	
VR301		EVNDRAA00B24	V.RESISTOR 20K	1	
VR302		EVN3ACA00B23	V.RESISTOR 2K	1	
VR701,02		EVM4LGA00B23	V.RESISTOR 2K	2	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR801		EVN3ACA00B52	V.RESISTOR 500	1	
VR802		EVN3ACA00B13	V.RESISTOR 1K	1	
VR803		EVNDRAA00B14	V.RESISTOR 10K	1	
VR2001		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2006		EVNDRAA00B15	V.RESISTOR 100K	1	
VR2009,10		EVND4AA00B25	V.RESISTOR 200K	2	
VR2011		EVNDRAA00B15	V.RESISTOR 100K	1	
VR2013		EVNDRAA00B23	VARIABLE 2K	1	
VR2018,19		EVNDRAA00B15	V.RESISTOR 100K	2	
VR3012,13		EVNDRAA00B52	V.RESISTOR 500	2	
VR3020		EVNDRAA00B53	V.RESISTOR 5K	1	
VR4001		EVNDRAA00B14	V.RESISTOR 10K	1	
VR4002		EVNDRAA00B25	V.RESISTOR 200K	1	
VR4004		EVNDRAA00B53	V.RESISTOR 5K	1	
VR4501		EVN3ACA00B53	V.RESISTOR 5K	1	
VR4502		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4503		EVND4AA00B23	V.RESISTOR 2K	1	
VR4505		EVND1AA00B14	V.RESISTOR 10K	1	
VR4507		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4509		EVN3ACA00B53	V.RESISTOR 5K	1	
VR4510		EVN4LCA00B25	V.RESISTOR 200K	1	
VR4512		EVND1AA00B22	V.RESISTOR 200	1	
VR7301		EVN38CA00B14	V.RESISTOR 10K	1	
VR7326		EVN38CA00B52	V.RESISTOR 500	1	
VR7328		EVN38CA00B52	V.RESISTOR 500	1	
VR7340		EVNE4AA00B14	V.RESISTOR 10K	1	
VR7342		EVNE4AA00B53	V.RESISTOR 5K	1	
VR7344		EVNE4AA00B14	V.RESISTOR 10K	1	
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X710		EFCH38MSP2	CRYSTAL OSCILLATOR	1	
X711		EFCS5R5MW5	FILTER	1	
X715		ELB5A043	FILTER	1	
X716		EFCA31R90M1	CRYSTAL OSCILLATOR	1	
X717		EFCA40R40M1	FILTER	1	
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3601		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		VSX0306	CRYSTAL OSCILLATOR	1	
X6002		VSQ0565	SENSOR	1	
X7301,02		EFCS5R5MS5B	CRYSTAL OSCILLATOR	2	
X7303,04		EFCS5R74MS5B	CRYSTAL OSCILLATOR	2	
X7305		ELB5A016	FILTER	1	
X7851		EFOA4R0M03C2	CRYSTAL OSCILLATOR	1	
		VSC2713	MAIN SHIELD	1	FOR TV DEAMODULATOR
		VSC2712	TOP SHIELD	1	FOR TV DEAMODULATOR
		VSC2714	BOTTOM SHIELD	1	FOR TV DEAMODULATOR

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		ENC17954	RF CONVERTER	1	<!>
		ENV57829H6	TUNER	1	<!>
		VSC1068	HEAT SINK	1	FOR IC6002
		VSC1323	HEAT SINK	1	FOR Q1001
		VEJ0813	I/O JACK BORD	1	
		VGU3501	SW KNOB	1	
	■	VEP02325B	SERVO PACK C.B.A.		
			CAPACITORS		
C201		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C202		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C203		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C204		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C205		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C206		ECEA0JKN220	E.CAPACITOR 6.3V 22U	1	
C207		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C208		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C209		ECUX1H471KBN	CHIP 50V 470P	1	
C210		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C2201		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C2204		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2205		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C2206		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2209		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C2210		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C2211		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C2212		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2213		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2214		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C2215		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2216		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2217		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2218		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2219		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C2220		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2221		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2222		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2223		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2224		ECUM1H220JCN	CHIP 50V 22P	1	
C2225		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C2226		ECUM1H101JCN	CHIP 50V 100P	1	
C2227,28		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C2229		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C2230		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C2231		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2232		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2233-35		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2236		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2237-39		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2240		ECUM1H222KBN	CHIP 50V 2200P	1	
C2241		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2242		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C2243		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2244		ECSF1CE105	T.CAPACITOR 16V 1U	1	
C2245		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2246		ECEA10M47	E.CAPACITOR 10V 47U	1	
C2247		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2248,49		ECUM1H472KBN	CHIP 50V 4700P	2	
C2250		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C2251		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2262		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2263		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2264		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2265		ECUM1H472KBN	CHIP 50V 4700P	1	
C2266		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2267,68		ECUM1H151JCN	CHIP 50V 150P	2	
C2269		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2270		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D201-04		MA165	DIODE	4	
D2201-04		MA165	DIODE	4	
D2205		MA4056M	DIODE	1	
D2212		MA165	DIODE	1	
D2216,17		MA165	DIODE	2	
IC201		LM358P	IC	1	
IC202		RZ4066BD	IC	1	
IC2201		AN3726K	IC	1	
IC2202		MN4013BS	IC	1	
IC2203		MN1280R	IC	1	
IC2204		MN4052BS	IC	1	
IC2205		MN6742VCWK5	IC	1	
IC2206		BA6435S	IC	1	
L2201-03		VLQEL05F101K	COIL 100UH	3	
L2204		VLQEL05F1R0H	COIL 1UH	1	
P2201		VJP1245T	CONNECTOR(MALE) 5P	1	
P2202		VJS1666	CONNECTOR(FEMALE)	1	
P2203		VJP1148	CONNECTOR(MALE) 2P	1	
Q201		2SD601	TRANSISTOR CHIP	1	
Q2201		2SD601	TRANSISTOR CHIP	1	
Q2202		2SC2295	TRANSISTOR	1	
Q2203		2SD602	TRANSISTOR CHIP	1	
Q2204-09		2SD601	TRANSISTOR CHIP	6	
QR201		UN2213	TRANSISTOR-RESISTOR	1	
QR2201,02		UN2117	TRANSISTOR-RESISTOR	2	
QR2206-09		UN2213	TRANSISTOR-RESISTOR	4	
QR2210		UN2212	TRANSISTOR-RESISTOR	1	
QR2213		UN2112	TRANSISTOR-RESISTOR	1	
QR2214		UN2213	TRANSISTOR-RESISTOR	1	
QR2215		UN2113	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R201,02		ERJ6GEYJ223	CHIP 1/10W 22K	2	
R203		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R204		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R205		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R206		ERJ6GEYJ683	CHIP 1/10W 68K	1	
R207,08		ERJ6GEYJ183	CHIP 1/10W 180K	2	
R209		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R210		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R211		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R212		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R213		ERJ6GEYJ272	CHIP 1/10W 2.7K	1	
R214		ERJ6GEYJ684	CHIP 1/10W 680K	1	
R215		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R216		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R217		ERJ6GEYJ333	CHIP 1/10W 33K	1	
R218		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R219		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R220		ERJ6GEYJ221	CHIP 1/10W 220	1	
R221		ERJ6GEYJ333	CHIP 1/10W 33K	1	
R222		ERJ6GEYJ271	CHIP 1/10W 270	1	
R223		ERJ6GEYJ122	CHIP 1/10W 1.2K	1	
R2201		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R2202		ERJ6GMYJ154	CHIP 1/10W 150K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2203		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R2204		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2205		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R2206		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R2207		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R2208		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R2209		ERJ6GMYJ471	CHIP 1/10W 470	1	
R2210		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R2211-13		ERJ6GMYJ223	CHIP 1/10W 22K	3	
R2214		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R2215,16		ERJ6GMYJ332	CHIP 1/10W 3.3K	2	
R2217		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2218		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R2219		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R2220		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2221		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R2222		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R2223,24		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R2225		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R2226		ERJ6GMYJ821	CHIP 1/10W 820	1	
R2227		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2228		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R2229-33		ERJ6GMYJ102	CHIP 1/10W 1K	5	
R2236		ERJ6GMYG362	M.RESISTOR CH1/10W 3.6K	1	
R2237		ERJ6GMYG821	M.RESISTOR CH1/10W 820	1	
R2238,39		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2240		ERX12SJR47E	M.RESISTOR 1/2W 0.47	1	
R2241,42		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2243		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R2244		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R2245		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R2246		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2247		ERJ6GMYG334	M.RESISTOR CH1/10W 330K	1	
R2248		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R2249		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2250		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2251		ERJ6GMYJ151	CHIP 1/10W 150	1	
R2252		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R2253,54		ERJ6GMYJ821	CHIP 1/10W 820	2	
R2255		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R2256		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2257		ERJ6GMYJ681	CHIP 1/10W 680	1	
R2258		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R2259		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R2260		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2261		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R2266		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2288		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R2289		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2290		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R2292		ERJ6GMYG392	M.RESISTOR CH1/10W 3.9K	1	
X2201		VSX0225	CRYSTAL OSCILLATOR	1	
		VSC0075	HEAT SINK	1	FOR IC2206
		VMC0075	HEAT SINK HOLD SPRING	1	FOR IC2206
		VMZ1352	HEAT SINK COVER	1	FOR IC2206
	■	VEP01353D	POWER C.B.A.		
			CAPACITORS		
C1101		ECQU2A224MN	P.CAPACITOR 100V 0.22U	1	<!>
C1102		ECQU2A154MN	P.CAPACITOR 100V 0.15U	1	<!>
C1108		ECOS2GU820	C.CAPACITOR 400V 80P	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473MZ	P.CAPACITOR 630V 0.047U	1	
C1111		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1112		ECQB1H682JZ	P.CAPACITOR 50V 6800P	1	
C1113		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C1114		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1115		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C1117		ECQP1101T404	M.CAPACITOR 100V 100P	1	
C1118		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1119,20		ECEA1DPS681	E.CAPACITOR 20V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECEA1AFZ331	E.CAPACITOR 10V 330U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECEA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C1136		ECQV1H105JZ	P.CAPACITOR 50V 1U	1	<!>
C1140,41		VCK0046	C.CAPACITOR 1000P	2	<!>
C1142		VCC0024	CAPACITOR 2200P	1	<!>
C1143,44		VCK0046	C.CAPACITOR 1000P	2	<!>
C1145		VCC0024	CAPACITOR 2200P	1	<!>
C1146		VCK0046	C.CAPACITOR 1000P	1	<!>
C1147		VCC0024	CAPACITOR 2200P	1	<!>
C1148		VCK0046	C.CAPACITOR 1000P	1	<!>
C1149		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D1102		S1WBA60	DIODE	1	<!>
D1103		VSD0002	DIODE	1	
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4030L	DIODE	1	<!>
D1107		MA165	DIODE	1	
D1108		ERA22-02	DIODE	1	
D1109		RL4ZPLF	DIODE	1	
D1110		MA185	DIODE	1	
D1111		31DQ04FC6	DIODE	1	
D1112		ERB83-004	DIODE	1	
D1113		MA2200B	DIODE	1	
D1114		MA4130L	DIODE	1	
IC1101		STRD6008X	IC	1	<!>
IC1102		STK5391	IC	1	
IC1103		SE013E	IC	1	
L1101,02		ELF18D221F	COIL	2	<!>
L1103		VLQ0335	COIL	1	
P1101		VJP1929T	CONNECTOR (MALE) 14P	1	
P1102		VJS2625	AC INLET	1	<!>
Q1101		PC111	PHOTO COUPLER	1	<!>
Q1102		2SD1330	TRANSISTOR	1	
			RESISTORS		
R1101		ERC12GM334	S.RESISTOR 1/2W 330K	1	<!>
R1102,03		ERDS1TJ563	C.RESISTOR 1/2W 56K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1105		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1107		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1108		ERD2FTVG681	C.RESISTOR 1/4W 680	1	
R1109		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R1110		ERG2SJ180	M.RESISTOR 2W 18	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R1111		ERG3SJ270	M.RESISTOR 3W 27	1	
R1113		ERG1SJ182E	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1123,24		ERDS2TJ474	C.RESISTOR 1/4W 470K	2	
R1125		ERW1PK2R2	W.RESISTOR 1/2W 2.2	1	
T1101		VLT0569	TRANSFORMER	1	
		VFJ0318	FUSE HOLDER	4	
		VMZ1183	CAPACITOR COVER	1	
		VMZ1184	CAPACITOR COVER	1	
	■	VEP05134B	HEAD AMP C.B.A.		
			CAPACITORS		
C501		ECUM1H102KBN	CHIP 50V 1000P	1	
C502,03		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C504		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C505		ECUM1H102KBN	CHIP 50V 1000P	1	
C507,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C509		ECUM1H332KBN	CHIP 50V 3300P	1	
C511		ECUM1E473ZFN	CHIP 25V 0.047U	1	
C513		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C514		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C515		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C517		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C518		ECUM1H150JCN	CHIP 50V 15P	1	
C519,20		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C523		ECUM1H150JCN	CHIP 50V 15P	1	
C524,25		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C527		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C530		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C532		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C533		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C534		ECUM1H102KBN	CHIP 50V 1000P	1	
C535		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C536		ECUM1H102KBN	CHIP 50V 1000P	1	
C537		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C551		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C552		VCEA1AAC470	E.CAPACITOR 10V 47U	1	
C553		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C555-59		ECUM1H103ZFN	CHIP 50V 0.01U	5	
C560		ECEA0JPK470	E.CAPACITOR 6.3V 47U	1	
C561		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C562,63		ECUM1H471KBN	CHIP 50V 470P	2	
C564,65		ECUM1H101JCN	CHIP 50V 100P	2	
C566		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C567		ECUM1H101JCN	CHIP 50V 100P	1	
C569		ECUM1H050DCN	CHIP 50V 5P	1	
D501,02		MA165	DIODE	2	
IC501		AN3334K	IC	1	
IC502		VCR0271	IC	1	
IC551		BA7740FS	IC	1	
L502		VLQ0188K330	COIL 33UH	1	
L504		VLQEL05F101K	COIL 100UH	1	
L505		VLQ0188K330	COIL 33UH	1	
L506		VLQ0188K6R8	COIL 6.8UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L551,52		VLQEL05F101K	COIL 100UH	2	
L553,54		VLQ0213K2R2	COIL 2.2UH	2	
P501		VJP1250T	CONNECTOR(MALE) 10P	1	
P502		VJS2603	CONNECTOR	1	
P551		VJP1236T	CONNECTOR(MALE) 9P	1	
Q501		2SB709	TRANSISTOR CHIP	1	
			RESISTORS		
R501		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R502		ERJ6GMYJ334	CHIP 1/10W 330K	1	
R503		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R504,05		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	2	
R507		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R508		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R510		ERJ6GMYJ471	CHIP 1/10W 470	1	
R512		ERJ6GMYJ331	CHIP 1/10W 330	1	
R513		ERJ6GMYJ821	CHIP 1/10W 820	1	
R514		ERJ6GMYJ100	CHIP 1/10W 10	1	
R515		ERJ6GMYJ821	CHIP 1/10W 820	1	
R516		ERJ6GMYJ561	CHIP 1/10W 560	1	
R517,18		ERJ6GMYJ100	CHIP 1/10W 10	2	
R519		ERJ6GMYJ561	CHIP 1/10W 560	1	
R520		ERJ6GMYJ331	CHIP 1/10W 330	1	
R521		ERJ6GMYJ100	CHIP 1/10W 10	1	
R522		ERJ6GMYJ101	CHIP 1/10W 100	1	
R523		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R551,52		ERJ6GMYJ473	CHIP 1/10W 47K	2	
R553		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R554		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R555		ERJ6GMYJ243	M.RESISTOR CH1/10W 24K	1	
R556		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R557		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R558		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R559		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R560		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R561,62		ERJ6GMYJ152	CHIP 1/10W 1.5K	2	
R563		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R564		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R565		ERJ6GMYJ100	CHIP 1/10W 10	1	
R566,67		ERJ6GMYJ471	CHIP 1/10W 470	2	
R568		ERJ6GMYJ391	CHIP 1/10W 390	1	
VR501,02		EVND1AA00B23	V.RESISTOR 2K	2	
		VSC2668	TOP SHIELD	1	
		VSC2669	BOTTOM SHIELD	1	
		VSC2670	MAIN SHIELD	1	
	■	VEP06533E	VR C.B.A.		
			CAPACITORS		
C6503		ECEA1AKS330	E.CAPACITOR 10V 33U	1	
C6504		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	1	
C6505		ECEA1CKS330	E.CAPACITOR 16V 33U	1	
C6507		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6508,09		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	2	
C6510		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6501		LN21RCPHL	LED	1	
IC6501		VCR0172	IC	1	
J6301		VJJ0192	HEAD PHONE JACK	1	
J6302		VJJ0210	MIC JACK	1	
P6501		VJP1247T	CONNECTOR(MALE) 7P	1	
P6502		VJS2357A015	CONNECTOR	1	
P6503		VJP1252T	CONNECTOR(MALE) 12P	1	
P6504		VJP1244T	CONNECTOR(MALE) 4P	1	
			RESISTORS		
R6501		EROS2CKG1601	M.RESISTOR 1/4W 1.6K	1	
R6502		EROS2CKG2000	M.RESISTOR 1/4W 200	1	
R6503		EROS2CKG1601	M.RESISTOR 1/4W 1.6K	1	
R6504		EROS2CKG2000	M.RESISTOR 1/4W 200	1	
R6505		EROS2CKG1102	M.RESISTOR 1/4W 11K	1	
R6506		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6507		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
SW6501		EVQQS307K	SWITCH	1	
VR3004		EWAKFKXB3B24	V.RESISTOR 20K	1	
VR6501		EWAKABXB3C23	V.RESISTOR 2K	1	
VR6503		EWANYGX05J24	V.RESISTOR 20K	1	
		KL04	LED SPACER	1	
		VJF0691	JACK HOLDER	1	
		VYC0160	REC VR PANEL UNIT	1	
		VGU4495	REC VR KNOB	2	
	■	VEP06537A	JOG/SHUTTLE C.B.A.		
D6701-03		LN38GCPP	LED	3	
P6701		VJS2621	CONNECTOR	1	
QR6701		UN1112	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6702		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R6703		EROS2CKG1802	M.RESISTOR 1/4W 18K	1	
R6704-06		EROS2CKG1801	M.RESISTOR 1/4W 1.8K	3	
R6707		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R6708		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R6709		EROS2CKG9102	M.RESISTOR 1/4W 91K	1	
R6710		EROS2CKG1202	M.RESISTOR 1/4W 12K	1	
R6711		EROS2CKG6802	M.RESISTOR 1/4W 68K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6712		EROS2CKG3302	M.RESISTOR 1/4W 33K	1	
R6713		EROS2CKG5102	M.RESISTOR 1/4W 51K	1	
R6714		EROS2CKG1203	M.RESISTOR 1/4W 120K	1	
SW6701		EVQQS307K	SWITCH	1	
	■	VEP07527B	TIMER C.B.A.		
			CAPACITORS		
C6701		ECEA0JK470I	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMER 30P	1	
C7502		ECUM1H080DCN	CHIP 50V 80P	1	
C7503		ECUM1H330JCN	CHIP 50V 33P	1	
C7504		ECUM1H220JCN	CHIP 50V 22P	1	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7509		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7513		ECUX1H560JCN	CHIP 50V 56P	1	
C7514		ECUM1H101JCN	CHIP 50V 100P	1	
C7520		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7521		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7522		ECUM1H223ZFN	CHIP 50V 0.022U	1	
C7523,24		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C7525		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		MA3068	DIODE	1	
D7504		MA73	DIODE	1	
D7507		MA73	DIODE	1	
D7510,11		MA73	DIODE	2	
D7513		MA73	DIODE	1	
D7516,17		MA73	DIODE	2	
D7530		MA73	DIODE	1	
D7532-41		MA73	DIODE	10	
D7550,51		LN28RCPL	DIODE	2	
D7553		LN28RCPL	DIODE	1	
D7555		LN28RCPL	DIODE	1	
D7556		LN38GCPL	DIODE	1	
D7557		LN28RCPL	DIODE	1	
D7560		MA73	DIODE	1	
DP7501		VSL0144	DISPLAY TUBE	1	
IC6701		UPC1490HA	IC	1	
IC7501		MN187125VHP	IC	1	
IC7502		MN12261	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280T	IC	1	
IC7505		BA6810S	IC	1	
L7501		VLQEL05F221K	COIL 220UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P7501		VJS2651B013W	CONNECTOR	1	
P7502		VJS2651B012W	CONNECTOR	1	
P7503		VJS2651B011W	CONNECTOR	1	
P7505		VJS2357A020	CONNECTOR (FEMALE)	1	
P7506		VJS2651B008W	CONNECTOR	1	
P7507		VJP2621	CONNECTOR	1	
Q7501		2SD601	TRANSISTOR CHIP	1	
QR7501		UN2213	TRANSISTOR-RESISTOR	1	
QR7502		UN2112	TRANSISTOR-RESISTOR	1	
QR7503		UN2113	TRANSISTOR-RESISTOR	1	
QR7505		UN2111	TRANSISTOR-RESISTOR	1	
QR7510,11		UN2112	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R6703		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6703		ERDS2TJ133	C.RESISTOR 1/4W 13K	1	
R6703		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6703		ERDS2TJ183	C.RESISTOR 1/4W 18K	1	
R7501		ERJ6GEYJ122	CHIP 1/10W 1.2K	1	
R7502		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R7503		ERJ6GEYJ221	CHIP 1/10W 220	1	
R7504		ERJ6GEYJ101	CHIP 1/10W 100	1	
R7505		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7506		ERJ6GEYJ821	CHIP 1/10W 820	1	
R7507		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	
R7508-10		ERJ6GEYJ103	CHIP 1/10W 10K	3	
R7511		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7512		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7513		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R7514		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7523-28		ERJ6GEYJ182	CHIP 1/10W 1.8K	6	
R7529-32		ERJ6GEYJ332	CHIP 1/10W 3.3K	4	
R7533		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7534		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7536		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7538		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7539		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7540		ERJ6GEYG223	CHIP 1/10W 22K	1	
R7541		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7542-44		ERJ6GEYJ473	CHIP 1/10W 47K	3	
R7547		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7548		ERJ6GEYJ181	CHIP 1/10W 180	1	
R7549		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
RX7501		EXBF11E104J	RESISTOR-RESISTOR	1	
RX7502		EXBF8E104J	COMBINATION RARTS	1	
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
		VFJ0693	DISPLAY TUBE HOLDER	1	
		VMD1343	LED SPACER	1	
		VSC2671	MAIN SHIELD	1	FOR IR RECEIVER C.B.A
		VSC2672	BOTTOM SHIELD	1	FOR IR RECEIVER C.B.A
	■	VEP00K88C	FE HEAD C.B.A.		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C1401		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C1402		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C1403		ECQB1H333KH	P.CAPACITOR 50V 0.033U	1	
CR1401		EXED103Z333C	CAPACITOR-RESISTOR	1	
L1401		VLQEL05F101K	COIL 100UH	1	
P1502		VJP1148	CONNECTOR 2P	1	
Q1401		2SD636	TRANSISTOR	1	(R)
T1401		EIQ7QF012Q	TRANSFORMER	1	
	■	VEP00M86A	FG AMP C.B.A.		
			CAPACITORS		
C1510		ECUM1H101JCN	CHIP 50V 100P	1	
C1511		ECUM1H104ZFM	C.CAPACITOR 50V 0.1U	1	
C1512		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C1513		ECUM1H101JCN	CHIP 50V 100P	1	
C1514		ECUM1H104ZFM	C.CAPACITOR 50V 0.1U	1	
IC1501		UPC358G	IC	1	
L1510,11		VLP0083	FILTER	2	
P1505		VJS1456	CONNECTOR(FEMALE)	1	
P1506		VJS1685	CONNECTOR	1	
			RESISTORS		
R1510		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R1511		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R1512		ERJ6GMYJ105	CHIP 1/10W 1M	1	
R1513-16		ERJ6GMYJ332	CHIP 1/10W 3.3K	4	
R1517		ERJ6GMYJ105	CHIP 1/10W 1M	1	
R1518		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R1519		ERJ6GMYJ473	CHIP 1/10W 47K	1	
	■	VEP00N05A	CYLINDER DRIVE C.B.A.		
			CAPACITORS		
C2901-03		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	3	
C2904-06		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	3	
C2907		ECUM1E683KBM	C.CAPACITOR CH 25V 0.068U	1	
C2908		ECUM1E473KBM	C.CAPACITOR CH 25V 0.047U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2909		ECQV1H104JS	P.CAPACITOR 50V 0.1U	1	
C2910,11		ECEA1CKS100	E.CAPACITOR 16V 10U	2	
C2912		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
IC2901		AN3815K	IC	1	
P2901		VJP2603	CONNECTOR	1	
P2902		VJP1232T	CONNECTOR(MALE) 5P	1	
			RESISTORS		
R2901		ERX12ANJR47	M.RESISTOR 1/2W 0.47	1	
	■	VEP66079B	REMOTECONTROLLER C.B.A.		
			CAPACITORS		
C6801		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C6802		ECUM1E104ZFM	CHIP 25V 0.1U	1	
C6803		ECEV1CAN4R7	E.CAPACITOR 16V 4.7U	1	
C6804		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6805,06		ECUM1H330JCN	CHIP 50V 33P	2	
C6807-09		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C6810-12		ECUM1E104ZFM	CHIP 25V 0.1U	3	
D1		LN247RCALUVT	DIODE	1	
D6801		SE303ACYTF	DIODE	1	
D6802-11		MA221	DIODE	10	
D6813		MA221	DIODE	1	
D6819		MA221	DIODE	1	
IC6801		MN158453VHM	IC	1	
IC6802		AN8355S	IC	1	
L6801		ELT3K017B	COIL	1	
Q1		PN147	TRANSISTOR	1	
Q6801		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q6802		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q6803		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
QR6802		FA1A4M	RESISTOR-RESISTOR	1	
QR6803		FA1L4Z	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R14		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R15		ERJ6GMYJ153	M.RESISTOR CH1/10W 15K	1	
R16		ERJ6GMYJ334	M.RESISTOR CH1/10W 330K	1	
R6801		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6802-04		ERJ6GMYJ474	CHIP 1/10W 470K	3	
R6805,06		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R6807		ERJ8GCYJ120	M.RESISTOR CH 1/8W 12	1	
R6808		ERJ8GCYJ150	M.RESISTOR CH 1/8W 15	1	
R6809		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6810		ERJ6GMYJ224	CHIP 1/10W 220K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6811		ERJ6GMYJ684	CHIP 1/10W 680K	1	
R6812		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R6813		ERJ6GMYJ120	CHIP 1/10W 12	1	
SN6801		VSQ0567	SENSOR	1	
VR6801		EVNDXAA03B34	V.RESISTOR 30K	1	
X6801		VSX0245	CRYSTAL OSCILLATOR	1	
X6802		EFBAL30D001K	CRYSTAL OSCILLATOR	1	
	■	VXA3553	MECHANISM CONNECTION C.B.A.		
IC1501,02		CN2170	PHOTO COUPLER	2	
P1504		VJS1493	CONNECTOR 15P	1	
	■	VEK3578	PHOTO TR (S) C.B.A.		
			CAPACITOR		
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1501		PN150NV	PHOTO TRANSISTOR	1	
		VMD0645	PHOTO TRANSISTOR HOLDER	1	
	■	-------	PHOTO TR (T) C.B.A.		
			CAPACITOR		
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
P1508		VJS2165	CONNECTOR 6P	1	
Q1502		PN150NV	PHOTO TRANSISTOR	1	
			RESISTOR		
R1503		ERDS2TJ222	C.RESISTOR 1/2W 2.2K	1	
		VMD0645	PHOTO TRANSISTOR HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks